

**U. S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM**

**CONGRESSIONAL SUBMISSION
FISCAL YEAR 2006**

SOUTH PACIFIC DIVISION

**Budgetary information will not be released
outside the Department of the Army until
7 February 2005**

JUSTIFICATION OF ESTIMATES FOR CIVIL FUNCTIONS ACTIVITIES
DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS
FISCAL YEAR 2006

SOUTH PACIFIC DIVISION

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SOUTH PACIFIC DIVISION

Summary

<u>General Investigations</u>	<u>FY 2005 Allocation</u>	<u>FY 2006 Request</u>	<u>Increase or Decrease</u>
Surveys	\$ 15,282,000	\$11,770,000	\$ -3,512,000
Preconstruction Engineering and Design	5,627,000	2,295,000	-3,332,000
Subtotal General Investigations	(20,909,000)	(14,065,000)	(-6,844,000)
 <u>Construction, General</u>			
Construction	216,126,000	185,412,000	-30,714,000
Dam Safety Assurance	3,553,000	8,000,000	4,447,000
Subtotal Construction, General	(219,679,000)	(193,412,000)	(-26,267,000)
 <u>Operations and Maintenance</u>			
Project Operations and Maintenance	119,416,000	117,587,000	-1,829,000
 GRAND TOTAL, SOUTH PACIFIC DIVISION	\$360,004,000	\$325,064,000	\$-34,940,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
1. SURVEYS – NEW					
a. Navigation Studies: None					
b. Flood Damage Prevention Studies: None					
c. Shoreline Protection Studies: None					
d. Ecosystem Restoration Studies: None					
e. Watershed/Comprehensive Studies: The amount of \$100,000 is requested to initiate and complete one new watershed/comprehensive study.					
California					
Coyote Creek Watershed	100,000	0	0	100,000	0
San Francisco District					

The Coyote Creek Watershed drains more than 320 square miles in Santa Clara County, California. The watershed encompasses most of the Santa Clara Valley eastern foothills, the City of Milpitas and portions of the Cities of San Jose and Morgan Hill. Coyote Creek flows through more than 40 miles of rural and heavily urbanized area to empty into South San Francisco Bay. More than 6,000 buildings and several major transportation corridors remain susceptible to extensive flooding. Flooding caused damages in 1982, 1983, 1986, 1995, and 1997. Potential damages from a 100-year flood are estimated at over \$138,000,000. The creek is designated an Evolutionarily Significant Unit habitat for Chinook salmon and Federally-listed Steelhead. The watershed also contains habitat for five other special status aquatic species; twenty special status upland species; and thirteen special status species that use the creek's mature riparian vegetation, including the Federally-listed Salt-Marsh Harvest Mouse. The San Francisco Estuary Project 2000 indicated considerable potential for restoration of habitat for Central California Coast steelhead, and a NOAA Fisheries letter dated 21 September 2001 stated that, without sound conservation planning, development in the watershed could be expected to further degrade essential steelhead habitat. The Corps will work with multiple agencies and organizations, including the Audubon Society, the US Environmental Protection Agency, NOAA's National Marine Fisheries Service, the US Fish & Wildlife Service, the California Department of Fish & Game, the Regional Water Quality Control Board (a State agency), Santa Clara County, the City of San Jose, and the sponsor of this study, the Santa Clara Valley Water District, to carry out the reconnaissance study and to evaluate system-wide, implementable solutions to the watershed problems of the basin, some of which may lie beyond the Federal interest. The sponsor, the Santa Clara Valley Water District, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The reconnaissance phase is scheduled to be completed in September 2006, which is 11 months after initiation of the study.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: Coyote Creek Watershed (cont'd)					
The study is authorized by Transportation and Infrastructure Committee Resolution adopted 22 May 2002.					
TOTAL WATERSHED/ COMPREHENSIVE STUDIES	<u>100,000</u>	<u>0</u>	<u>0</u>	<u>100,000</u>	<u>0</u>
f. Special Studies: None					
TOTAL SURVEYS – NEW	<u>100,000</u>	<u>0</u>	<u>0</u>	<u>100,000</u>	<u>0</u>

2. SURVEYS – CONTINUING:

a. Navigation Studies: The amount of \$850,000 is requested to complete one study in Fiscal Year 2006.

California

Los Angeles County	2,079,000	662,000	567,000	850,000	0
Los Angeles District					

Los Angeles River Estuary (Long Beach), Port of Los Angeles, Port of Long Beach, and Marina del Rey are located within the coastal waters of Los Angeles County. All four areas have a need for the removal and disposal of contaminated dredged sediments. The study will address the need for initiation of maintenance and new dredging activities which have been hampered by the unavailability of disposal sites for contaminated dredged material, resulting in negative impacts to safety, environmental health, and economic development. Los Angeles County, Port of Los Angeles, and City of Long Beach, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
a. Navigation Studies: Los Angeles County (cont'd)					
Total Estimated Study Cost	\$4,079,000				
Reconnaissance Phase (Federal)	79,000				
Feasibility Phase (Federal)	2,000,000				
Feasibility Phase (Non-Federal)	2,000,000				
TOTAL NAVIGATION STUDIES	<u>2,079,000</u>	<u>662,000</u>	<u>567,000</u>	<u>850,000</u>	<u>0</u>

The reconnaissance phase was completed in September 2002. The feasibility study is scheduled for completion in August 2006.

b. Flood Damage Prevention Studies: The amount of \$2,587,000 is requested to continue three studies and complete three studies in Fiscal Year 2006.

California

Estudillo Canal San Francisco District	1,570,000	47,000	53,000	600,000	870,000
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The study area is located in Alameda County, within the city limits of San Leandro, California about 15 miles southeast of San Francisco. The watershed drains into the San Francisco Bay and has a drainage area of approximately 10 square miles. The watershed is located in San Leandro, California and the majority of the watershed is developed. A substantial number of parcels within a densely populated area of the watershed are designated as being in a FEMA floodplain. An independently completed hydrology study indicates that preliminary cost estimates for necessary improvements to protect these parcels may total more than \$20 million. The Alameda County Flood Control and Water Conservation District, the local sponsor, expressed support for the study in March 2003, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase at full Federal expense. The reconnaissance report was certified to be in accord with policy in August 2004. Upon execution of the Feasibility Cost Sharing Agreement, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is \$3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
b. Flood Damage Prevention Studies: Estudillo Canal (cont'd)					
Total Estimated Study Cost	\$3,070,000				
Reconnaissance Phase (Federal)	70,000				
Feasibility Phase (Federal)	1,500,000				
Feasibility Phase (Non-Federal)	1,500,000				
The reconnaissance phase is scheduled for completion in March 2005. The feasibility study completion date is to be determined.					
San Francisquito Creek San Francisco District	1,600,000	25,000	79,000	200,000	1,296,000

The study area is located in the northern portion of Santa Clara County, and in southern San Mateo County, in Northern California, about 22 miles south of San Francisco. The area is about 12.5 miles long and extends from the San Francisco Bay near the Palo Alto Airport to Searsville Lake, in the foothills above Stanford University. The primary problem area along the San Francisquito Creek is downstream of El Camino Real, which is a major transportation artery that forms the boundary between East Palo Alto and Menlo Park, and Palo Alto. Nearly 5,000 homes, businesses, schools, and industrial sites lie within the flood plain. The study area includes Stanford University and Silicon Valley businesses. The Federal Emergency Management Agency has recently prepared new flood hazard maps incorporating its levee policy for the flood prone area. The area has experienced recent severe flooding, including the most damaging flood of record, which occurred in 1998. This study would evaluate potential solutions to flooding and opportunities for environmental restoration. The San Francisquito Creek Joint Powers Authority, the local sponsor, expressed support for the study in April 2002, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in August 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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b. Flood Damage Prevention Studies: San Francisquito Creek (cont'd)

The reconnaissance phase is scheduled for completion in August 2005. The feasibility study completion date is to be determined.

South San Francisco Shoreline Study San Francisco District	8,465,000	121,000	258,000	600,000	7,486,000
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The study area is located along the shoreline of South San Francisco Bay, California, extending from the City of Palo Alto to the City of San Leandro and includes 15,100 acres of salt ponds. A substantial portion of the Bay shoreline consists of levees that also provide protection from tidal flooding for an extensive residential, commercial and industrial area. The heart of Silicon Valley is located within the study area. The last estimated value of the urban development in low-lying areas along the Bay shoreline is approximately \$5.5 billion at September 1998 price levels. The study will re-examine tidal flooding problems and potential alternative solutions as well as opportunities to restore wetland habitat along the bay shoreline that would support threatened and endangered species including the salt marsh harvest mouse and the California clapper rail. House Resolution Docket 2697 dated July 24, 2002 authorized the review of the Final Letter Report for the San Francisco Shoreline Study, California, dated July 1992, and all related interims and other pertinent reports to determine whether modifications to the recommendations contained therein are advisable at the present time in the interest of fluvial and tidal flood damage reduction, environmental restoration and protection, and related purposes along the South San Francisco Bay shoreline for the counties of San Mateo, Santa Clara, and Alameda, California. Of particular interest is the provision of future tidal flood protection for the study area, given the recent (2003) acquisition of the Cargill South Bay Salt Ponds by the State of California and U.S. Department of Interior and the goal to revert the evaporation ponds to historic tidal wetlands. The California Coastal Conservancy, the local sponsor, expressed support for the study in August 2004, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase at full Federal expense. The reconnaissance report has been certified to be in accordance with policy, and work will continue into the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$16,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost is as follows:

Total Estimated Study Cost	\$16,715,000
Reconnaissance Phase (Federal)	215,000
Feasibility Phase (Federal)	8,250,000
Feasibility Phase (Non-Federal)	8,250,000

The reconnaissance phase is scheduled for completion in March 2005. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
b. Flood Damage Prevention Studies: (cont'd)					
Sutter County Sacramento District	1,558,000	979,000	218,000	361,000	0

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter County, California and includes the Sacramento, Feather and Bear Rivers, Sutter and Tisdale Bypass, Yuba City and communities of Live Oak, Meridian, Robbins and Nicolaus. Results from levee evaluation studies on the Sacramento Urban Area, Marysville/Yuba City, Mid-Valley, Lower and Upper Sacramento Area levee reconstruction projects indicate that structural problems caused by on-going seepage exist. The Corps is addressing levee reconstruction under these projects. The Sutter County reconnaissance study addressed levee improvements beyond reconstruction in these areas and investigated new areas for flood prevention. As a result of the January 1997 floods, high water caused seepage and boils, and a levee break occurred threatening the town of Meridian. In addition, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized constructing a stability berm under emergency construction authority. The State of California and Sutter County, the local sponsors, signed the Feasibility Cost Sharing Agreement in March 2000.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. A Schedule and Cost Change Request is being prepared to increase the estimated feasibility cost from \$2,500,000 to \$3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,058,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in March 2000. The feasibility study is scheduled for completion in September 2006.

Upper Penitencia Creek San Francisco District	2,852,000	2,008,000	216,000	628,000	0
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The study area, extending along 3.6 miles of Upper Penitencia Creek and its watershed, is located in the northwest portion of Santa Clara County, California, adjacent to the city of San Jose. Flooding has occurred in the watershed from Upper Penitencia Creek flows in 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1982

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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b. Flood Damage Prevention Studies: Upper Penitencia Creek (cont'd)

flood, an approximate 10-year event, resulted in over \$2 million in damages. The flood plain contains approximately 1,600 properties that are subject to flood damage. It is estimated that a 100-year flood event would cause \$51 million in damages. A study was initiated by the Soil Conservation Service, which developed feasibility level plans for flood damage reduction, but the amount of agricultural benefits identified in the analysis was insufficient to permit Soil Conservation Service participation. The Corps of Engineers was requested by the local sponsor to continue the effort. The improvements proposed by the Soil Conservation Service include flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a 100-year level of flood protection. The reconnaissance study provided a review of the Soil Conservation Service study efforts and identified the remaining tasks to be performed during the feasibility and design phases. The Santa Clara Valley Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 1998.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$5,014,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,359,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	2,507,000
Feasibility Phase (Non-Federal)	2,507,000

The reconnaissance phase was completed in March 1998. The feasibility study is scheduled for completion in September 2006.

Texas

Sparks Arroyo Colonia, El Paso County Albuquerque District	600,000	197,000	205,000	198,000	0
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The study is located along Sparks Arroyo in southern El Paso County, Texas. Sparks Arroyo is in an area of rapidly expanding population, which has doubled to 30,000 since 1990. On June 20, 1999, a local thunderstorm centered in the study area, caused flooding in the community of Sparks Addition and closed Interstate 10 for two hours. Preliminary analysis indicates that there are approximately 300 residential, commercial, and public structures within the Sparks Arroyo project flood plain. El Paso County, Texas, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2003.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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b. Flood Damage Prevention Studies: Sparks Arroyo Colonia, El Paso County (cont'd)

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$1,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase was completed in July 2003. The feasibility study is scheduled for completion in September 2006.

TOTAL FLOOD DAMAGE PREVENTION STUDIES	<u>16,645,000</u>	<u>3,377,000</u>	<u>1,029,000</u>	<u>2,587,000</u>	<u>9,652,000</u>
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a. Shoreline Protection Studies: The amount of \$1,096,000 is requested to continue one study and complete two studies in Fiscal Year 2006.

California California Coastal Sediment Master Plan Los Angeles District	5,200,000	187,000	92,000	600,000	4,321,000
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The Master Plan study area encompasses the entire California coastline, including the nearshore ocean environment and the coastal watersheds. The purpose of the study is to develop a comprehensive plan, for the management, restoration, protection, and preservation of the sediment resources along the coast of California. Ultimately, the Master Plan will provide analyses that will enable Federal, state, and local entities to assess and prioritize regionally based projects for potential investment of program funds. The study will evaluate alternatives for reducing damages from coastal storms; increasing the natural sediment supply to the coast through dam removal and other means; restoring aquatic ecosystems; and identifying potential sources of sediment, such as material dredged from ports and harbors. Some of these alternatives may lie outside the Federal interest. The Master Plan will provide Federal and non-Federal entities with an adaptive, programmatic road map to inform their respective planning and funding decisions on potential future coastal resources projects. The plan will allow these entities to plan water resources projects within a system-oriented context where data can be easily shared and technical expertise and tools can be efficiently directed to solve coastal resources problems on a regional basis.

Dams and debris basins are important components of the Master Plan study, as they act as man-made sediment traps that interfere with the transport of sediments

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Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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c. Shoreline Protection Studies: California Coastal Sediment Master Plan (cont'd)

from the coastal watersheds to the shoreline. California's shorelines have been adversely affected by the reduced transportation of natural sediment sources from rivers and streams into the nearshore littoral cells. The removal of Matilija Dam, which is part of an ongoing study, could provide a major source of sediments for the Ventura County coastline, and thus a continuous level of natural shoreline stabilization.

Because of the large geographic area (the entire California coastline) covered by the Master Plan, a Geographic Information System (GIS) based application and database will be required to manage the voluminous data to be collected. The Master Plan GIS applications along with the economic analysis contained within the Master Plan will provide the backbone for running physical and economic optimization decision support tools to assist Federal, State, and local decision makers in identifying, ranking, and selecting projects for investment, that would yield potentially significant regional benefits, relative to the costs.

The intent of the Master Plan is to minimize discrete water resources projects by regionalizing solutions that holistically address individual problem areas. Any subsequent regionalized projects recommended in the Master Plan will be considered in collaboration with other Federal and non-Federal agencies, including USEPA, California State Resources Agency, NOAA, regional governments, and USGS. The California State Resources Agency, the local sponsor, expressed support for the study in November 2003, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase. If the reconnaissance report is certified to be in accord with policy, the Master Plan will continue into the feasibility phase of the study.

Funds requested for FY 2006 will be used to continue the feasibility study to include inventory of existing resources, build GIS databases and decision support applications, and conduct geotechnical field investigations. The estimated cost of the feasibility phase is \$10,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$10,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	5,000,000
Feasibility Phase (Non-Federal)	5,000,000

The reconnaissance phase is scheduled to be completed in May 2005. A completion date is to be determined for the feasibility study.

Peninsula Beach	905,000	597,000	0	308,000	0
Los Angeles District					

The study area is located along the Pacific Ocean just west of the entrance to Alamitos Bay and North of the Long Beach Breakwater. Study will investigate, and develop solutions to the ongoing erosion problems along the highly developed shoreline in Long Beach, California. The existing protective beach is experiencing severe erosion

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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c. Shoreline Protection Studies: Peninsula Beach (cont'd)

that is exposing residential and commercial properties valued at over \$200 million. The average rate of erosion is estimated to be 10 to 20 feet per year along the 100-foot wide beach, and winter storms could cause shoreline erosion of 50 to 150 feet along this area and result in damages to back shore development. During the 1983 storms the 175-foot protective beach was breached resulting in waves overtopping a seawall and causing damages to development. The City of Long Beach, the local sponsor, signed the Feasibility Cost Sharing Agreement in January 2004.

Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$860,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$1,335,000
Reconnaissance Phase (Federal)	475,000
Feasibility Phase (Federal)	430,000
Feasibility Phase (Non-Federal)	430,000

The reconnaissance phase was completed in April 1997. The feasibility study is scheduled for completion in September 2006.

San Clemente Shoreline Los Angeles District	1,150,000	794,000	168,000	188,000	0
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The study area is located on the Pacific Coast of Southern California, south of the city of Los Angeles and approximately 59 miles north of the city of San Diego. The city of San Clemente is experiencing a continuous loss of shore protection and recreational beach width. Over the past 20 years, average beach widths have been gradually reduced to about 50 feet. Storm induced waves have become a serious threat over the past several years to coastal residential and commercial properties which include the city of San Clemente's Marine Safety Building, public restroom facilities located on the beach, lifeguard stations, parking areas, and paving near the pier. Due to chronic beach erosion, the railroad corridor between the bluff and the beach is threatened by undermining. As a preventive measure, Orange County Transportation Authority has been selectively placing riprap stones along the most critical segment between North Beach and the Marine Safety Building to reduce wave impacts on the railroad tracks. This maintenance practice of adding additional stones to the existing under-designed revetment has cost an average of \$200,000 to \$300,000 over every three-year period. The study will investigate alternatives to provide shoreline protection. The City of San Clemente, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
c. Shoreline Protection Studies: San Clemente Shoreline (cont'd)					
Total Estimated Study Cost	\$2,200,000				
Reconnaissance Phase (Federal)	100,000				
Feasibility Phase (Federal)	1,050,000				
Feasibility Phase (Non-Federal)	1,050,000				
TOTAL SHORELINE PROTECTION STUDIES	<u>7,255,000</u>	<u>1,578,000</u>	<u>260,000</u>	<u>1,096,000</u>	<u>4,321,000</u>

d. Ecosystem Restoration Studies: The amount of \$300,000 is requested to continue one study in Fiscal Year 2006.

Laguna De Santa Rosa San Francisco District	1,972,000	571,000	159,000	300,000	942,000
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The Laguna De Santa Rosa is a tributary to the Russian River and is located approximately 13 miles west of Santa Rosa, California. Historically, this area has served as a 7,000-acre storm detention basin during flooding of the Russian River and is a valuable coastal fresh water wetland. During the past decade, several high floods in the Russian River have reduced the ability of the Laguna De Santa Rosa to function as a major flood basin, due to siltation. Thousands of acres of wetlands habitat have been lost or degraded. Endangered species, including the steelhead trout and the California red-legged frog, are being negatively impacted due to the loss of habitat. The study will investigate and evaluate solutions to this siltation problem, to restore both the storm detention function and wetland character of the area. The Sonoma County Water Agency, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 2000.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$3,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,847,000
Reconnaissance Phase (Federal)	97,000
Feasibility Phase (Federal)	1,875,000
Feasibility Phase (Non-Federal)	1,875,000

The reconnaissance phase was completed in February 2000. The feasibility study completion date is to be determined.

7 February 2005

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
d. Ecosystem Restoration Studies: (cont'd)					
TOTAL ECOSYSTEM RESTORATION STUDIES	1,972,000	571,000	159,000	300,000	942,000
e. Watershed/Comprehensive Studies: The amount of \$6,387,000 is requested to continue thirteen studies and complete three studies in Fiscal Year 2006.					
Arizona					
Pima County	3,125,000	1,982,000	655,000	488,000	0
Los Angeles District					

The study area is located in Pima County and encompasses the metropolitan area of Tucson, the second largest city in Arizona, Town of Marana and unincorporated Pima County. The study will investigate water resources development opportunities including environmental programs, incorporation of historical cultural features, flood control, and recreation. The study will also address environmentally degraded flood prone areas in conjunction with the Sonoran Desert Conservation Plan completed in October 1998. This plan consists of six elements: ranch conservation, historic and cultural preservation, riparian restoration, mountain parks, habitat, biological and ecological corridor conservation, and critical and sensitive habitat preservation. Organizations such as Defenders of Wildlife, Sierra Club, and civic groups support the conservation plan. Government agencies from local, state and Federal entities are also supportive of this effort. Pima County, City of Tucson and Town of Marana, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$6,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$6,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The reconnaissance phase was completed in September 2001. The feasibility study is scheduled for completion in June 2006.

Santa Cruz River (Grant Road to Ft. Lowell Road) Los Angeles District	1,875,000	474,000	273,000	400,000	728,000
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The study area is located along the Santa Cruz River, from Fort Lowell Road to Grant Road, approximately five miles northwest of downtown Tucson, Arizona. The study would determine if there is a Federal interest in providing flood control to the properties along the river. Potential measures include both structural and non-structural

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Santa Cruz River, Grant Road to Ft. Lowell Road (cont'd)

methods. The Santa Cruz River is characterized by large violent flood events, which carry high volumes of sediment, and cause extensive erosion and inundation of adjacent land. The University of Arizona's Agricultural Research Station is at high risk during large flood events. Pima County, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2005 funds will be used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,375,000
Reconnaissance Phase (Federal)	375,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in September 2002. A completion date is to be determined for the feasibility study.

California

Aliso Creek Mainstem Los Angeles District	1,595,000	196,000	210,000	350,000	839,000
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The study area is located in south Orange County, about 40 miles southeast of Los Angeles, California. The watershed covers approximately 36 square miles. This study was previously funded as part of the overall Aliso Creek Watershed Management Study as provided in the Energy and Water Development Appropriations Act of 2000. The findings of this study indicate a Federal interest in providing solutions to the severe environmental degradation and will further examine channel stability, environmental restoration, and recreation along Aliso Creek and tributaries. Channel degradation and flood damage along the mainstem of Aliso Creek and some of its tributaries has caused severe environmental degradation. This degradation has caused increasing monetary and non-monetary losses to adjacent infrastructure and environmental resources. Infrastructure damage in recent years has exceeded \$5 million, and is continuing to grow at an increasing rate. The County of Orange requested this separate study to address the specific environmental degradation problems along the mainstem of Aliso Creek. The County of Orange, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2004.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Aliso Creek Mainstem (cont'd)

the study. The estimated cost of the feasibility phase is \$2,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,995,000
Reconnaissance Phase (Federal)	195,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase was completed in September 2004. A completion date is to be determined for the feasibility study.

Arana Gulch Watershed San Francisco District	1,120,000	119,000	79,000	100,000	822,000
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The study area is located in Santa Cruz County adjacent to the Port of Santa Cruz, California. The port is experiencing a sedimentation problem with their north harbor that lies at the terminus of the watershed. The sediment generated by the watershed washes into the harbor and creates a substantial dredging problem for the port. This study will address environmental degradation of the watershed and will evaluate potential plans of improvement that could help alleviate navigation problems at the port. The Santa Cruz Port District, the local sponsor, expressed support for the study in April 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase at full Federal expense. The reconnaissance report was certified to be in accord with policy in November 2003. Upon execution of the Feasibility Cost Sharing Agreement, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,120,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in March 2005. The feasibility study completion date is to be determined.

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: (cont'd)					
Los Angeles County Drainage Area (Cornfields) Los Angeles District	2,050,000	93,000	60,000	600,000	1,297,000

The study area is located within the Los Angeles County Drainage Area, along the Los Angeles River northeast of downtown Los Angeles, California. The river is mostly concrete lined, providing little environmental or aesthetic relief from urban development. The parcel referred to as, the Cornfields, is a former railroad maintenance and switching yard. The approved reconnaissance report contains the recommendation to investigate three additional specific locations in the study area. These locations are Taylor Yard, the Arroyo Seco Confluence and the Mission Road Yard. Each of these areas has been identified for potential ecosystem restoration opportunities. The study will evaluate opportunities to restore the river's natural riparian environment and habitat in a highly developed urban area, while maintaining the current flood control protection for the river. The City of Los Angeles has expressed support for the study in September 2003 and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2005.

Fiscal Year 2005 funds are being used to complete the reconnaissance phase and continue into the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$3,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$3,950,000
Reconnaissance Phase (Federal)	150,000
Feasibility Phase (Federal)	1,900,000
Feasibility Phase (Non-Federal)	1,900,000

The reconnaissance phase is scheduled to be completed in May 2005. A completion date is to be determined for the feasibility study.

Malibu Creek Watershed Los Angeles District	1,150,000	695,000	288,000	167,000	0
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The study area is located about 30 miles west of Los Angeles, California, approximately two-thirds of the 109 square miles are located in northwestern Los Angeles County and the remaining third is in the southeastern portion of the county. Malibu Creek Watershed is within the Santa Monica Mountains and is a mix of urban

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Malibu Creek Watershed (cont'd)

development and open space. Malibu Creek drains into Malibu Lagoon and the Santa Monica Bay. An existing, obsolete water supply dam, Rindge Dam, does not allow steelhead trout to travel beyond the dam's location into Malibu Creek's tributaries and is blocking the flow of sediment to the ocean and area beaches. The study will focus on environmental restoration of Malibu Creek, and specifically, the potential for removal of Rindge Dam. Removal of the dam could double the trout habitat. The sediment behind the dam could also be used to nourish beaches in the city of Malibu. The study will also develop methods to manage the stream's sediment and water quality to facilitate ongoing efforts to improve the ecosystem in Malibu Lagoon so that it will become a thriving wetland. The California State Department of Parks and Recreation, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,050,000
Feasibility Phase (Non-Federal)	1,050,000

The reconnaissance phase was completed in July 2001. The feasibility study is scheduled for completion in September 2006.

Mugu Lagoon	1,300,000	1,072,000	146,000	82,000	0
Los Angeles District					

The study area is located in Ventura County, California within the Calleguas Creek Watershed. The watershed is approximately 350 square miles. A primary area of concern is the Mugu Lagoon as it contains several Federal and State endangered and threatened species. The quality of the lagoon has been degraded due to sediment from Calleguas Creek and related drainage of contaminants from surrounding agricultural and other development. Mugu Lagoon is one of the few wetlands remaining in Southern California and there is a strong Federal and Local interest. The study will evaluate environmental impacts associated with sediment transport, flood flows, and upstream watershed land-use practices on Mugu Lagoon. The investigation will also include a preliminary evaluation of plans for flood protection and ecosystem restoration within the watershed and will develop cost estimates for those plans. Ventura County Watershed Protection District, the local sponsor, signed the Feasibility Cost Sharing Agreement in November 1999.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Mugu Lagoon (cont'd)

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase was completed in November 1999. The feasibility study is scheduled for completion by April 2006.

Napa Valley Watershed Management San Francisco District	2,848,000	810,000	159,000	500,000	1,379,000
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The study area, comprised of 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California. Degradation of the watershed has taken place over the years due to natural and man-made causes. Local, state and Federal agencies have formed a workgroup to initiate a planning effort to address this degradation. This study will identify solutions to watershed management issues on the Napa River and tributaries upstream of the city of Napa. The Napa County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$5,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,598,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	2,750,000
Feasibility Phase (Non-Federal)	2,750,000

The reconnaissance phase was completed in June 2001. The feasibility study completion date is to be determined.

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: (cont'd)					
Russian River Ecosystem Restoration San Francisco District	3,671,000	1,068,000	198,000	400,000	2,005,000

The study area consists of the Russian River, which is 110 miles long and flows into the Pacific Ocean about 55 miles north of the entrance to San Francisco Bay. The Corps constructed two multi-purpose reservoirs in the watershed, Lake Mendocino (Coyote Dam) and Lake Sonoma (Warm Springs Dam), and has also constructed other flood control improvements in the area. Problems reported include a significant drop in the water level of the main stem of the river which has caused tributaries to the river to downcut, undermining bridges and exposing water and sewer lines; a lowering of groundwater levels along the floodplain adjacent to the downcut river channel, causing problems for both local water companies and landowners; and current dam operations are believed to have contributed to bank failure, channel scour, and associated loss of both riparian wetlands and private lands. This loss of habitat has affected several species of anadromous fish, now listed as Federal endangered species. This study will address the effects of flood control improvements on the watershed, restoration of a sustainable riparian ecosystem and anadromous fish habitat, and other beneficial uses. The California Coastal Conservancy, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2000.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$6,650,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$6,996,000
Reconnaissance Phase (Federal)	346,000
Feasibility Phase (Federal)	3,325,000
Feasibility Phase (Non-Federal)	3,325,000

The reconnaissance phase was completed in June 2000. The feasibility study completion date is to be determined.

San Pablo Bay Watershed San Francisco District	2,798,000	1,158,000	277,000	300,000	1,063,000
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The watershed is located within the San Francisco Bay drainage basin in Marin, Sonoma, Napa, Solano and Contra Costa Counties, California. San Pablo Bay is the northern arm of San Francisco Bay. This investigation was initially funded under the authority of Section 503 of the Water Resources Development Act of 1996, as

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: San Pablo Bay Watershed (cont'd)

provided in the Energy and Water Development Appropriations Acts of 1998 and 1999. However, based on the desires of the local sponsor, the California Coastal Conservancy, and other interests that support a long term comprehensive plan for management of the watershed, the investigation is now proceeding under the river basin study authority of Northern California Streams as contained in Section 209 of the Flood Control Act of 1962. The California Coastal Conservancy is developing non-regulatory approaches to wetland protection and restoration in conjunction with existing agricultural activities. Within the watershed, there are opportunities to increase the state's wetland acreage by over five percent. Wetlands in the watershed are critically important to migratory waterbirds on the Pacific Flyway and several other endangered species. This study will address potential Federal participation for environmental restoration of the area. The California Coastal Conservancy, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 1999.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$5,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,498,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	2,700,000
Feasibility Phase (Non-Federal)	2,700,000

The reconnaissance phase was completed in June 1999. The feasibility study completion date is to be determined.

Santa Ana River and Tributaries, Big Bear Lake Los Angeles District	4,525,000	426,000	793,000	900,000	2,406,000
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The study area is located in the San Bernardino Mountains, San Bernardino County, near the headwaters of the Santa Ana River, California. The city of Big Bear is geared towards year-round residents as well as a destination resort with lake sports in the summer and skiing in the winter. The local lake problems are a result of increased sedimentation deposits, which creates excessive noxious aquatic plant growth that contributes to shallow conditions and water quality issues. The study will address these broad ranges of issues and solutions for restoration of aquatic habitat for fish and wildlife, water quality, and flood control capabilities, which will improve public access and recreation opportunities. Big Bear Municipal Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2003.

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: Santa Ana River and Tributaries, Big Bear Lake (cont'd)					
Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$8,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:					
Total Estimated Study Cost	\$8,875,000				
Reconnaissance Phase (Federal)	175,000				
Feasibility Phase (Federal)	4,350,000				
Feasibility Phase (Non-Federal)	4,350,000				
The reconnaissance phase was completed July 2003. A completion date is to be determined for the feasibility study.					
Santa Rosa Creek Ecosystem Restoration San Francisco District	2,752,000	867,000	416,000	400,000	1,069,000

The study area is located in Sonoma County, California, and includes most of the city of Santa Rosa. The watershed drains approximately 80 square miles, including a variety of agriculture, parks and open space, and urban land uses. Santa Rosa Creek, a tributary to the Russian River, was channelized by the Soil Conservation Service in the 1960s to provide flood control protection to the surrounding city of Santa Rosa. The existing riparian vegetation was cleared, instream debris and boulders were removed, and riprap was placed to armor the creek's banks. The flood control project resulted in habitat loss from the removal of pools, riffles, large boulders and woody debris, all of which provided shelter for fish and wildlife. Without the shading effects of the once extensive tree canopy, the creek's water temperature has significantly increased thereby affecting salmonid survival. This habitat loss has also negatively affected the Federally listed threatened steelhead trout and endangered California freshwater shrimp. A draft hydrologic analysis, conducted by the Corps in August 2002, concluded that improved and unimproved channels within the watershed would experience flows during a 100-year storm event significantly greater than anticipated by the original design documents for those facilities. The local sponsor requested that the scope of the study be expanded to include flood damage reduction. The Corps determined that flood damage reduction was an appropriate purpose under the existing authorization (Water Resources Development Act of 1996) for the feasibility study. The City of Santa Rosa, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 1999, amended in December 2003 to include the flood damage reduction purpose.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Santa Rosa Creek Ecosystem Restoration (cont'd)

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$5,252,000
Reconnaissance Phase (Federal)	252,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase was completed in May 1999. The feasibility phase completion date is to be determined.

Sonoma Creek and Tributaries San Francisco District	2,300,000	402,000	217,000	300,000	1,381,000
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The study area is located in Sonoma County, California. The Sonoma Creek watershed drains a 170 square mile area into the northern reaches of the San Francisco Bay estuary. This study was originally funded as part of the overall San Pablo Bay Watershed Management study as provided in the Energy and Water Development Appropriations Acts of 1998, 1999, 2000, and 2001. The findings of this study indicate a Federal interest in providing solutions to environmental restoration and flood protection to Sonoma Creek and tributaries. Channelization of the creek to increase farming opportunities is believed to have caused increased flooding in the lower watershed. Also, increased erosion and sedimentation in the upper watershed is impacting geomorphic stability. Potential solutions to be considered in the feasibility study are flood plain restoration, setback levees for flood protection and stream restoration, beneficial reuse of dredged material, and geomorphic modifications to protect, restore, and enhance Sonoma Creek and tributaries. The potential magnitude and types of benefits from these actions would include the restoration of over 14,000 acres of tidal, seasonal, and freshwater wetlands; environmental enhancement of 10 to 15 miles of riparian corridor; and protection to over 20 threatened or endangered listed species. Also, potential significant economic and environmental benefits could be realized by providing flood protection linked with ecosystem restoration. The Southern Sonoma County Resource Conservation District, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 2001.

Fiscal year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for fiscal year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$4,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: Sonoma Creek and Tributaries (cont'd)					
Total Estimated Study Cost	\$4,550,000				
Reconnaissance Phase (Federal)	50,000				
Feasibility Phase (Federal)	2,250,000				
Feasibility Phase (Non-Federal)	2,250,000				
The reconnaissance phase was completed in May 2001. The feasibility study completion date is to be determined.					
Westminster, Coyote Creek and Carbon Canyon Creek Watersheds Los Angeles District	1,820,000	217,000	97,000	500,000	1,006,000

The Coyote Creek and Carbon Canyon Creek Watersheds study areas encompasses approximately 165 square miles, located 25 miles east of Los Angeles in Orange and Los Angeles Counties, California. The study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The area is highly urbanized including residential, commercial and industrial development. The creeks vary between rectangular and trapezoidal concrete and riprap channels. Some urban creeks have resulted in significant flooding. This study will evaluate improvements for flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creeks continue into the feasibility phase as two separate studies. The County of Orange, the local sponsor, signed the Feasibility Cost-Sharing Agreement in February 2004. The agreement revises the study name to "The Coyote Creek – Lower San Gabriel Watershed" to avoid confusion with the Westminster, East Garden Grove study. Future budget justification materials will reflect the aforementioned name.

Fiscal Year 2005 funds are being used to continue the Feasibility phase of the study, Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$3,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$3,520,000
Reconnaissance Phase (Federal)	120,000
Feasibility Phase (Federal)	1,700,000
Feasibility Phase (Non-Federal)	1,700,000

The reconnaissance phase was completed in February 2004. A completion date is to be determined for the feasibility study.

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South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: (cont'd)					
Westminster, East Garden Grove	2,960,000	280,000	330,000	650,000	1,700,000

Los Angeles District

The Westminster watershed study area encompasses approximately 90 square miles and is located about 25 miles southeast of Los Angeles in Orange County, California. This study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The area lies on a flat coastal plain, and is almost entirely urbanized with residential and commercial development. In 1974, 1983, 1990's flood damage occurred along the East Garden Grove-Wintersburg Channel, estimated at \$2.7 million, that affected residential, commercial and industrial development within the cities of Santa Ana, Westminster, Huntington Beach and Fountain Valley. Some urban creeks have caused significant flooding in the area. The study will evaluate improvements for watershed management, flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creek Watershed continue into the feasibility phase as two separate watershed studies. The County of Orange, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2003.

Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$5,500,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	\$5,710,000
Reconnaissance Phase (Federal)	210,000
Feasibility Phase (Federal)	2,750,000
Feasibility Phase (Non-Federal)	2,750,000

The reconnaissance phase was completed in September 2003. A completion date is to be determined for the feasibility study.

New Mexico

Española Valley, Rio Grande and Tributaries Albuquerque District	2,320,000	440,000	99,000	250,000	1,531,000
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APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive Studies: Española Valley, Rio Grande and Tributaries (cont'd)

The Española Valley lies at the confluence of the Rio Grande, Rio Chama, Santa Cruz River, and several lesser streams in north-central New Mexico. Española, the largest community in the valley, is located 85 miles south of the New Mexico -Colorado border and 25 miles north of Santa Fe. Six Indian pueblos are located within the study area. The bosque along the Rio Grande functions as crucial habitat within the Española Valley. Wetlands in the area also play a critical role in the larger ecosystem through maintaining water quality by filtering out sediments, harmful toxins and excess nutrients sources along the Rio Grande. Where these riparian areas have been significantly disturbed by human interventions such as urbanization, exotic species introduction, livestock grazing, flood control or water management, they have become degraded. Restoration features will improve and increase habitat (cottonwood, riparian gallery forest, wetlands type) in the study area, including habitat of the endangered Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher. The rapid population growth within the Española Valley has increased the potential for flooding at many locations. Floods have been recorded within the study area in 1865, 1874, 1884, 1886, 1891, 1903, 1911, 1920, 1929, 1935, 1941, 1942, 1958, 1969, 1970, 1978, 1987, and 1991. These floods were caused by summer rainfall or spring snowmelt. Corps of Engineers surveys after the floods in 1969 and 1970 estimated damages of \$2,524,000 and \$1,285,000 (October 2004 price levels), respectively. Flood damages occurred in Española, numerous small towns and villages, and at the nearby Indian pueblos, causing both residential and commercial damages. Urban and rural bridges, crops, orchards, and irrigation facilities have been damaged as the result of flooding. A Feasibility Cost Sharing Agreement was signed with the City of Española as the local sponsor. The Feasibility study was initiated, in February 1993. In September 1996, the feasibility phase was discontinued and reclassified to inactive status due to sponsor difficulties in obtaining real estate assurances from Santa Clara Pueblo. Since that time, the Pueblos of Santa Clara, San Ildefonso and San Juan have expressed support for resumption of the study, understand the 50-50 cost sharing of feasibility phase studies, and are scheduled to sign a Feasibility Cost Sharing Agreement in April 2005 to resume the study. The feasibility study will determine the potential to investigate and provide environmental restoration, water quality improvements along with flood damage reduction measures, and recreation enhancements from the San Juan Pueblo to the San Ildefonso Pueblo along the Rio Grande including the city of Española, New Mexico.

Fiscal Year 2005 funds are being used to fully fund the reconnaissance phase, execute the Feasibility Cost Sharing Agreement and initiate the feasibility phase . The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$3,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,110,000
Reconnaissance Phase (Federal)	470,000
Feasibility Phase (Federal)	1,850,000
Feasibility Phase (Non-Federal)	1,850,000

The reconnaissance phase is scheduled to be completed in April 2005. A completion date is to be determined for the feasibility study.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
e. Watershed/Comprehensive Studies: (cont'd)					
TOTAL WATERSHED/ COMPREHENSIVE STUDIES	38,188,000	10,299,000	4,293,000	6,387,000	17,209,000
f. Special Studies: The amount of \$450,000 is requested to continue two studies in Fiscal Year 2006.					
California					
Sacramento-San Joaquin Delta Sacramento District	7,755,000	5,302,000	0 <u>1/</u>	200,000	2,253,000

1/ Funds of \$159,000 are being reallocated to two spin-off studies.

The study area is located in Sacramento, San Joaquin, and Contra Costa Counties, California and extends from Walnut Grove south to Tracy and from the city of Stockton west to Suisun Bay. The area within the Sacramento-San Joaquin Delta consists of about 700,000 acres of land segregated into some 100 tracts and islands, bounded by interconnecting waterways and surrounded by 1,100 miles of levees which normally prevent the lands from being inundated by high tides or high river stages. However, flood protection is inadequate for the islands and tracts within the study area. Over 140 levee failures have occurred in the Delta since 1900. About 30 of these failures have occurred since 1980. Lands within these levees are among the most productive agricultural lands in the State, and failures due to levee instability are becoming more prevalent. The major reasons for this instability are the subsidence of island interiors and poor foundation conditions of existing levees. Also, water quality degradation occurs due to saltwater intrusion resulting from levee failures. Damages from levee failures and costs associated with maintenance work are increasing. The most recent levee failures in the study area were in February 1986, which caused damages estimated at \$17 million. The flooding of January 1997 necessitated emergency evacuations of some areas and caused numerous boils, cracks, and seepage problems on several islands and tracts throughout the Delta. Emergency contract repairs in the Delta exceeded \$3.5 million. In June 2004, part of the Middle River levee protecting Jones Tract experienced a major failure that made national news. Damages and repairs resulting from this failure are estimated at \$75 million. The purpose of the study is to determine a regional plan for flood control, salinity intrusion caused by levee failures, navigation, recreation, fish and wildlife, and long-term management of the complex island/waterway network in the Delta. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement (FCSA) in August 1991. The State and the Corps are conducting the cost-shared special study with the goal of producing a regional planning report for flood control, environmental restoration, and navigation. Execution of an amendment to the FCSA in February 1997 initiated Phase 2 activities, which included construction of levee test sections on Sherman and Brannan-Andrus Islands to aid in the development of levee

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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f. Special Studies: Sacramento – San Joaquin Delta (cont'd)

design criteria. Further study focusing on specific islands in the Delta will investigate flood protection, ecosystem restoration, and recreation opportunities. The special study includes levee criteria development, geotechnical studies, risk analysis, environmental evaluation, restoration, and economic studies.

Fiscal Year 2005 funds are being used to continue two spin-off reconnaissance surveys, Delta Islands and Levees and North Delta Islands, directed by Congress in the Conference report accompanying the Energy and Water Development Appropriations Act, 2004. Funds requested for Fiscal Year 2006 will be used to continue the Sacramento-San Joaquin Delta special study. The estimated cost of the study is \$12,545,000, including \$9,580,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests and \$2,965,000 for earlier studies at full Federal expense. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$12,545,000
Feasibility Phase (Federal)	7,755,000
Feasibility Phase (Non-Federal)	4,790,000

The feasibility study completion date is to be determined.

New Mexico

Middle Rio Grande Bosque Albuquerque District	1,425,000	595,000	178,000	250,000	402,000
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The study will address ecosystem restoration and recreation needs within the Middle Rio Grande Basin. The Middle Rio Grande Basin is located in central New Mexico from Cochiti Reservoir to Elephant Butte Reservoir, some 180 miles south. The study area within the Middle Rio Grande Basin encompasses approximately 2500 acres of the Bosque along the Rio Grande, from the North Diversion Channel, for approximately 14 miles through Albuquerque to the South Diversion Channel. River flow regulation by Cochiti Dam upstream of the study area has changed the historical flow regime in the Rio Grande. Water is diverted from the river for irrigation, industrial, and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the provisions of the Endangered Species Act. The study will evaluate current conditions within the study area and make recommendations to improve environmental quality, reduce fire potential, and develop passive recreation opportunities. The Middle Rio Grande Conservancy District, the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement was signed in April 2004.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
f. Special Studies: Middle Rio Grande Bosque (cont'd)					
Fiscal Year 2005 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2006 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is \$2,050,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:					
Total Estimated Study Cost	\$2,450,000				
Reconnaissance Phase (Federal)	400,000				
Feasibility Phase (Federal)	1,025,000				
Feasibility Phase (Non-Federal)	1,025,000				
The reconnaissance phase was completed in April 2004. A completion date is to be determined for the feasibility study.					
TOTAL SPECIAL STUDIES	<u>9,180,000</u>	<u>5,897,000</u>	<u>178,000</u>	<u>450,000</u>	<u>2,655,000</u>
TOTAL SURVEYS CONTINUING	<u>75,319,000</u>	<u>22,384,000</u>	<u>6,486,000</u>	<u>11,670,000</u>	<u>34,779,000</u>
TOTAL SURVEYS	<u>75,419,000</u>	<u>22,384,000</u>	<u>6,486,000</u>	<u>11,770,000</u>	<u>34,779,000</u>

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
3. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES, NEW: None					
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES, CONTINUING:					
a. Navigation: None					
b. Flood Control: The amount of \$477,000 is requested to complete one PED activity in Fiscal Year 2006.					
California					

Pajaro River at Watsonville San Francisco District	6,530,000	5,736,000	317,000	477,000	0
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The project is located in the city of Watsonville and vicinity, about 100 miles south of San Francisco, California. The city of Watsonville has experienced continued flooding from the Pajaro River and from its tributaries, Corralitos and Salsipuedes Creeks. The construction of levees to provide a 50-year level of flood protection was completed by the Corps of Engineers in June 1949. Project improvements included about 11.8 miles of levee construction on Pajaro River and 2.4 miles on Corralitos Creek. The maximum flood of record, that of December 1955, would have caused an estimated \$177 million in damages to the Pajaro River under October 2002 prices and conditions of development. The recommended project, estimated to cost \$157.0 million with an estimated Federal cost of \$117.8 million and an estimated non-Federal cost of \$39.2 million, includes construction of floodwalls and/or levees along Salsipuedes and Corralitos Creeks, which will provide a 100-year level of protection. The average annual benefits amount to \$27.4 million, all for flood control. The benefit-cost ratio is 3.4 to 1 at a discount rate of 7 percent based upon the latest economic analysis in the Alternative Formulation Briefing document dated April 2004. Preconstruction engineering and design studies will also evaluate alternative plans that will provide 100-year level of flood protection to both urban and agricultural lands along the border of Santa Cruz and Monterey Counties. The General Re-evaluation Report is scheduled for completion in September 2006. The Counties of Santa Cruz and Monterey, the local sponsors, stated their support for the project in March 2004, by resolution approving the recommended plan (NED). Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at full Federal expense. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$6,530,000	Total Estimated Preconstruction Engineering and Design Cost	\$6,530,000
Initial Federal Share	6,530,000	Ultimate Federal Share	4,900,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	1,630,000

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
b. Flood Control: Pajaro River at Watsonville (cont'd)					
TOTAL FLOOD CONTROL	6,530,000	5,736,000	317,000	477,000	0

c. Shoreline Protection: None

d. Ecosystem Restoration: The amount of \$1,018,000 is requested to continue two PED activities in Fiscal Year 2006.

Arizona

Rillito River, Pima County	3,750,000	0	145,000	618,000	2,987,000
Los Angeles District					

The Rillito River is located in Southeast Arizona within Pima County and flows through the city of Tucson, second largest city in Arizona. The project area encompasses about 500 acres along the river and between Craycroft and Campbell Ave. In Arizona, over 90 percent of riparian areas have been lost due to impacts from European settlement and urbanization. A feasibility report was completed in May 2004 and the Chief of Engineer's Report was signed in December 2004. The recommended project, estimated to cost \$68.3 million with an estimated Federal cost of \$44 million and an estimated non-Federal cost of \$24.3 million at October 2004 price levels, includes: restoration of a significant ecosystem resource along the Pacific Flyway for neo-tropical birds, reconnect wildlife corridors, restore wildlife habitat for species significant to Pima County, provide potential habitat for threatened and endangered species, and restore about 391 acres of habitat, 4.8-mile reach of threatened plant communities of cottonwood/willow riparian forest, seasonal cienega, Mesquite Bosque, and 5 years of monitoring and adaptive management necessary to ensure success of the project. The Pima County, Arizona, Flood Control District, the local sponsor, expressed support for the project in April 2004, understands the cost-sharing requirements during preconstruction engineering and design and is prepared to execute a cost-sharing agreement scheduled for March 2005. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
d. Ecosystem Restoration: Rillito River, Pima County (cont'd)					
Total Estimated Preconstruction Engineering and Design Costs	\$5,000,000			Total Estimated Preconstruction Engineering and Design Costs	\$5,000,000
Initial Federal Share	3,750,000			Ultimate Federal Share	3,250,000
Initial Non-Federal Share	1,250,000			Ultimate Non-Federal Share	1,750,000

This project is not yet authorized for construction. The cost sharing for construction of the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Fiscal Year 2005 funds are being used to initiate preconstruction engineering and design. Funds requested for Fiscal Year 2006 funds will be used to continue preconstruction engineering and design. A completion date is being determined for preconstruction engineering and design.

Va Shly-Ay Akimel Salt River Los Angeles District	3,750,000	0	495,000	400,000	2,855,000
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The Va Shly-Ay Akimel study area is located along approximately 14 miles of the Salt River. The project area encompasses about 17,435 acres and approximately 2 miles wide downstream of the Granite Reef Dam to the Pima Freeway (SR101). The City of Mesa borders the south side of the area. The area along the river is severely degraded and has sustained a very large loss of riparian habitat. A feasibility report was completed in September 2004 and the Chief of Engineer's Report was signed in January 2005. The recommended project, estimated to cost \$139 million with an estimated Federal cost of \$90.1 million and an estimated non-Federal cost of \$48.9 million includes restoration and improving 1,485 acres of habitat including four nationally significant habitat types; Cottonwood-Willow, Wetlands including River Bottom, Mesquite, and Sonoran Desert Shrub, and one grade control structure, water delivery systems, and re-grading of the river for revegetation. The plan provides restoration benefits of 1,006 average annual functional capacity units (AAFCU), which results in an average annual cost per AAFCU of \$10,100. The project will provide benefits to the habitat for important bird species including the Yuma clapper rail, southwestern willow flycatcher, cactus ferruginous pygmy owl, California brown pelican, and bald eagle. The Salt River Pima Maricopa Indian Community and the City of Mesa, the local sponsors, expressed support for the project in April 2004, understand the cost-sharing requirements during preconstruction engineering and design and are prepared to execute a cost-sharing agreement scheduled for March 2005. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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d. Ecosystem Restoration: Va Shly-ay Akimel Salt River (cont'd)

Total Estimated Preconstruction Engineering and Design Costs	\$5,000,000	Total Estimated Preconstruction Engineering and Design Costs	\$5,000,000
Initial Federal Share	3,750,000	Ultimate Federal Share	3,250,000
Initial Non-Federal Share	1,250,000	Ultimate Non-Federal Share	1,750,000

This project is not yet authorized for construction. The cost sharing for the ecosystem restoration features will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Cost sharing for the recreation features will be 50/50. Fiscal Year 2005 funds are being used to initiate preconstruction engineering and design. Funds requested for Fiscal Year 2006 will be used to continue preconstruction engineering and design. A completion date is being determined for preconstruction engineering and design.

TOTAL ECOSYSTEM RESTORATION	7,500,000	0	640,000	1,018,000	5,842,000
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e. Watershed/Comprehensive: The amount of \$800,000 is requested to continue one PED activity in Fiscal Year 2006.

California

Matilija Dam Los Angeles District	5,850,000	0	131,000	800,000	4,919,000
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The Matilija Dam is located on Matilija Creek, a tributary to the Ventura River, near the town of Ojai, in Ventura County, California. The Ventura River drains approximately 223 square miles of Ventura County, California and outlets into the Pacific Ocean north of Ventura Harbor. The Matilija Dam Ecosystem Restoration Project will restore about 33 miles of river system to a more natural condition. A primary component of the project is the removal of the Matilija Dam to allow the endangered Steelhead to pass the dam site to historically pristine spawning and rearing habitat. Other benefits will be the removal of non-native vegetations and the restoration of a more natural river system, which will allow the river to scour and deposit sediments more naturally. This may also increase sand delivered to nearby beaches. The feasibility report was completed in September 2004 and the Chief's Report was signed in December 2004. The recommended project, estimated to cost \$123.8 million with an estimated Federal cost of \$76.9 million and an estimated non-Federal cost of \$46.9 million, includes construction of levees and flood walls to maintain the existing levels of flood protection, transportation and storage of select fine sediments to minimize turbidity, removal of the Matilija Dam to restore a natural

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
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e. Watershed/Comprehensive: Matilija Dam (cont'd)

river process that supports a more natural ecosystem, contour of sediments upstream of the current dam site to minimize potential excessive sediment loads in flood events and accelerate a more natural river system, removal of non-native vegetation to encourage reestablishment of native vegetation, creation of enhanced and expanded recreation opportunities, construction of other features to support project goals, and will include an adaptive management program to assure project success. The project will result in the increase of 731 average annual habitat units. The local sponsor, Ventura County Watershed Protection District, has expressed their support for the project, understands the cost-sharing requirements during preconstruction engineering and design, and is prepared to execute a cost-sharing agreement scheduled for May 2005. Preconstruction engineering and design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the preconstruction engineering and design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	\$7,800,000	Total Estimated Preconstruction Engineering and Design Costs	\$7,800,000
Initial Federal Share	5,850,000	Ultimate Federal Share	5,070,000
Initial Non-Federal Share	1,950,000	Ultimate Non-Federal Share	2,730,000

The project has not yet been authorized for construction. The cost sharing for the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. Cost sharing for the recreation features will be 50/50. Fiscal Year 2005 funds are being used to initiate preconstruction engineering and design. Funds requested for Fiscal Year 2006 will be used to continue preconstruction engineering and design. A completion date is being determined for preconstruction engineering and design.

TOTAL WATERSHED/COMPREHENSIVE	<u>5,850,000</u>	<u>0</u>	<u>131,000</u>	<u>800,000</u>	<u>4,919,000</u>
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f. Multiple Purpose Power: None

APPROPRIATION TITLE: General Investigations, Fiscal Year 2006

South Pacific Division

Study	Total Estimated Federal Cost \$	Allocation Prior to FY 2005 \$	Allocation FY 2005 \$	Tentative Allocation FY 2006 \$	Additional to Complete After FY 2006 \$
4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES: (cont'd)					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES, CONTINUING	<u>19,880,000</u>	<u>5,736,000</u>	<u>1,088,000</u>	<u>2,295,000</u>	<u>10,761,000</u>
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	<u>19,880,000</u>	<u>5,736,000</u>	<u>1,088,000</u>	<u>2,295,000</u>	<u>10,761,000</u>
GRAND TOTAL – SURVEYS AND PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	<u>95,299,000</u>	<u>28,120,000</u>	<u>7,574,000</u>	<u>14,065,000</u>	<u>45,540,000</u>

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Oakland Harbor, California (50-ft) (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: The project consists of deepening the 4-mile Inner Harbor and 3.4-mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer turning basins. Approximately 12.8 million cubic yards of excavated dredged material will require disposal. The middle harbor enhancement area (MHEA) will use about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the inner harbor. Previously authorized deepening of the 4-mile Inner Harbor and 3.4-mile Outer Harbor to 42 feet deep was completed in July 1998.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 14.4 to 1.0 @ 7 percent.

TOTAL BENEFIT - COST RATIO: 9.3 to 1.0 @ 7 percent.

INITIAL BENEFIT - COST RATIO: 9.3 to 1.0 @ 7 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation included in the Chief of Engineer's report approved in April 1999 at 1998 prices.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 Jan 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	\$169,971,000		Entire Project	25	TBD
Estimated Appropriation Requirement (USCG)	300,000				
Estimated Total Appropriation Requirement	170,271,000				
Future Non-Federal Reimbursement	15,871,000				PHYSICAL DATA
Estimated Federal Cost (Ultimate)	154,400,000				Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.
Estimated Non-Federal Cost	\$ 151,800,000				Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.
Cash Contribution	\$ 63,979,000				
Other Costs	71,950,000				Habitat: Create 190 acres of shallow water and sub-tidal habitat.
Reimbursements	15,871,000				
Total Estimated Project Cost	\$ 306,200,000				
Allocations to 30 September 2004	39,838,000				
Conference Allowance for FY 2005	27,500,000				
Allocation for FY 2005	24,430,000	<u>1/</u>			<u>1/</u> Reflects \$2,872,000 reduction assigned savings and slippage, and \$198,000 rescission.
Allocation through FY 2005	64,268,000	38			
Allocation Requested for FY 2006	48,000,000	66			
Programmed Balance to Complete after FY 2006	\$57,703,000				
Unprogrammed Balance to Complete after FY 2006	0				

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. The existing Federal navigation channel serving Oakland Harbor is inadequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and large containerships. Cargo movement by larger vessels is hampered by the need to load to less than full capacity and to wait for high tides to avoid grounding hazards. Annual tonnage handled by the Port amounted to approximately 16 million tons in 2001. The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998. Vessels may now depart the Port with some additional cargo, but must still arrive light-loaded. The remainder of the project is needed to allow safe and efficient utilization of the Port. Average annual benefits, all commercial navigation, are estimated at \$187,885,000 based on 1998 prices. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future.

FISCAL YEAR 2006: The requested amount of \$48,000,000 will be applied as follows:

Complete Construction on Inner Harbor Phase 1B	\$ 6,000,000
Continue Dredging Contract Phase 3D and award Phase 3E	40,550,000
Planning, Engineering and Design	450,000
Construction Management	1,000,000
Total	\$48,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$14,300,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	10,000,000	N/A
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	49,421,000	\$694,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992.	14,558,000	N/A
Pay 100% of the costs for local service facilities and berthing facilities.	47,650,000	N/A
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged material disposal areas provided for commercial navigation.	15,871,000	N/A
Total Non-Federal Costs	\$151,800,000	\$694,000

Division: South Pacific

District: San Francisco
7 February 2005

Oakland Harbor, California (50-ft)

Requirements of Local Cooperation (Continued)

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

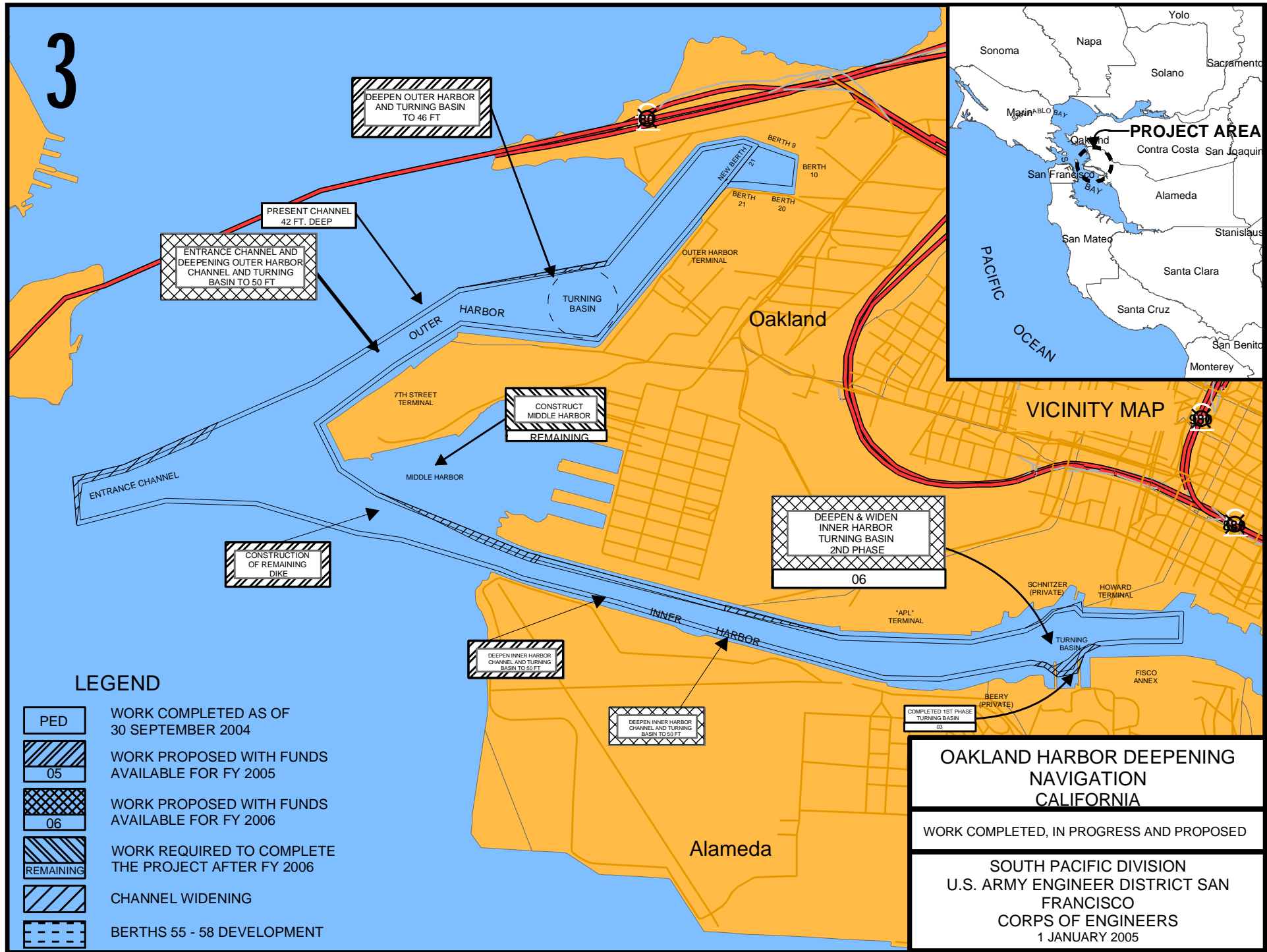
STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 feet deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of \$151,800,000, which includes a cash contribution of \$79,850,000 (including reimbursement to the U.S. Treasury over 30 years) is approximately \$11,800,000 more than the amount reflected in the Project Cooperation Agreement. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The Corps appropriation requirement has increased by \$25,971,000 due to increased cost in general navigation features and beneficial use of dredged material reflected in the approved amended Project Cooperation Agreement. The current Federal cost estimate (ultimate) of \$154,400,000 is an increase of \$10,800,000 from the latest estimate (\$143,600,000) presented to Congress (FY 2005). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 1,000,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	9,800,000
Total	\$10,800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in May 1998.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on 27 September 2001. The Oakland Harbor PCA amendment package for acceptance of additional local funds will be executed by the end of January 2005. The local sponsor has expressed interest in contributing additional funds to the project in FY 2005 if required to maintain the schedule.



APPROPRIATION TITLE: Construction, General (Navigation)

PROJECT: Port of Los Angeles (Main Channel Deepening), California (Completion)

LOCATION: The project is located at the Port of Los Angeles on the coast of southern California in San Pedro Bay, approximately 25 miles south of downtown Los Angeles, California

DESCRIPTION: The project consists of deepening the main channel from the current depth of 45 feet to 53 feet. The proposed project would dredge approximately 8 million cubic yards of sediment from the Los Angeles main channel, West basin channel, West turning basin, East basin channel, East turning basin, Cerritos channel with disposal at Southwest Slip, Pier 300 expansion, Cabrillo Shallow Water Habitat expansion, and Pier 400.

AUTHORIZATION: Water Resources Development Act of 2000, Energy and Water Development Appropriations Act of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 17.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 4.1 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 4.4 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Chief's Report - Port of Los Angeles Channel Deepening Project dated December 2000 at October 1999 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$58,100,000		Entire Project	80	April 2006
Estimated Non-Federal Cost	\$135,900,000				
Cash Contributions	\$58,100,000				
Other Cost	77,800,000				
Total Estimated Project Cost	\$194,000,000				
					PHYSICAL DATA
					Dredge channel to 53 feet at the following locations:
					Main Channel East Basin Channel
					West Basin Channel Cerritos Channel
					East Turning Basin West Turning Basin
Allocations to 30 September 2004	\$34,935,000				
Conference Allowance for FY 2005	23,000,000				
Allocation for FY 2005	20,465,000 ^{1/}				
Allocations through FY 2005	55,400,000	95			Create acres at the following sites:
Allocation Requested for FY 2006	2,700,000	100			Southwest Slip Fill 43 acres
Programmed Balance to Complete after FY 2006	0				Pier 300 Expansion 40 acres
Unprogrammed Balance to Complete after FY 2006	0				Cabrillo Shallow Water Habitat 54 acres
					Pier 400 Submerged Material 125 acres

1/ Reflects \$2,402,000 reduction assigned as savings and slippage, \$165,000 rescission and \$32,000 reprogrammed to the project.

Division: South Pacific

District: Los Angeles
7 February 2005

Port of Los Angeles (Main Channel Deepening), CA

JUSTIFICATION: Port of Los Angeles serves the entire Pacific Southwest with goods passing through the port either to or from all 50 states. Major commodities imported and exported include automobiles, containerized dry and liquid bulk cargoes. Total throughput at the Port of Los Angeles has increased from 44 million metric tons in 1989 to about 59 million metric tons in 2000. Growth in containerized cargo imports is the driving force behind the need for navigation improvements. For the period 1990 through 1996, the combined San Pedro Ports inbound containerized cargo grew from 12 million metric tons to approximately 18.5 million metric tons. In 1999, the Port of Los Angeles alone handled 3.8 million TEU's (Twenty-foot equivalent units, the standard for measuring containerized trade), an increase of 11.7 percent over the 1998 throughput. Vessels drafting more than 40 feet are potentially subject to tidal delays, given a 45 ft channel depth and a required 5 ft of underkeel clearance. Increasing the channel depth to 53 feet is expected to allow the largest containerhips over 75,000 dead weight tons to fully load. Dredged material will be used to create new land for terminal development and to create shallow water habitat for environmental mitigation. Average annual benefits, all navigation, are \$53,730,000, at October 1999 price levels.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Complete Construction	\$ 2,300,000
Engineering and Design	100,000
Construction Management	300,000
Total	\$ 2,700,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Repair, Maintenance, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 100,000	\$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	28,500,000	
Pay 50 percent of the costs allocated to general navigation facilities during construction and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	58,100,000	\$128,000

	Payments During Construction and Reimbursements	Annual Operation, Repair, Maintenance, Rehabilitation and Replacement Costs
Requirements of Local Cooperation (Continued)		
Provide associated costs to include locally preferred disposal, berth dredging and wharf upgrades.	50,800,000	
Credit for Federal share of feasibility study cost in accordance with Section 203 Of Water Resources Development Act 1986.	- 1,600,000	
Total Non-Federal Costs	\$135,900,000	\$128,000

The Non-Federal sponsor has also agreed to make all required payments concurrently with project construction and has been authorized to provide advanced contributions.

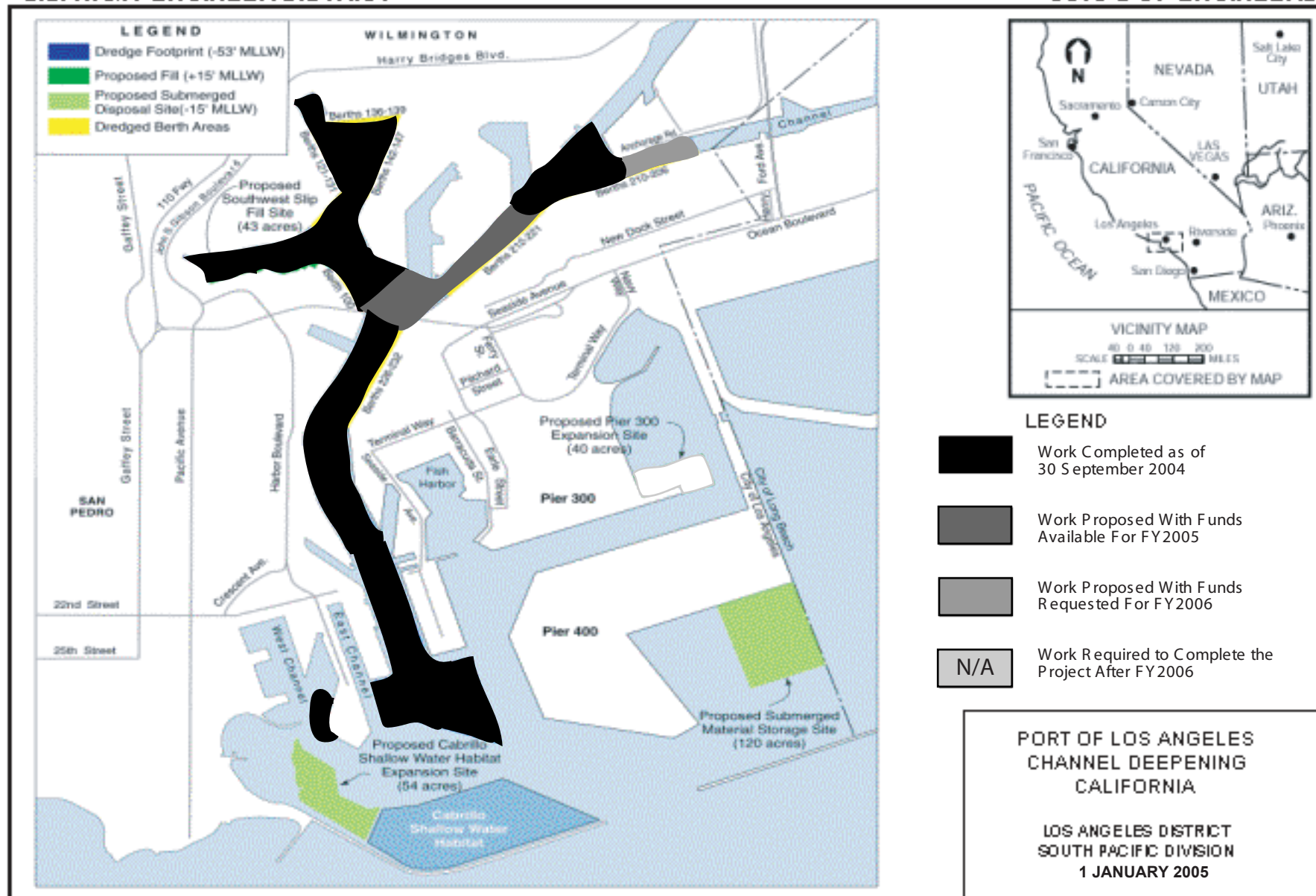
STATUS OF LOCAL COOPERATION: The feasibility report, prepared by the Port of Los Angeles, was submitted to the Assistant Secretary of Army (Civil Works) on March 6, 2000 describes the commitment by the Port to cost share the project. The Port of Los Angeles will receive credit for the Federal share of the feasibility study cost pursuant to section 203 of the WRDA 1986. The Project Cooperation Agreement was executed in July 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$58,100,000 is the same as the latest estimate presented to Congress (FY 2005). (See Other Information)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was completed in September 2000 and the Record of Decision was signed September 2001.

OTHER INFORMATION: Funds to initiate pre-construction, engineering and design were appropriated in FY 2001. Funds to initiate construction were appropriated in FY 2002. The Energy and Water Development Appropriations Act for FY 2004 directs the secretary to credit toward the non-federal share of the cost of the project the cost of planning, design, and construction work carried out by the non-federal interest before the date of the partnership agreement for the project if the Secretary determines the work is integral to the project. A report documenting these costs is being prepared.

The current authorized maximum project cost (Section 902) is \$198,000,000. The local sponsor is pursuing project reauthorization to increase the authorized cost to \$222,000,000 for additional disposal, which the Corps supports.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: American River Watershed, California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties. It is comprised of three principal streams, the North, Middle and South Forks of the American River, which flow westward into Folsom Lake, through the city of Sacramento and into the Sacramento River, and includes Folsom Dam and Reservoir, located on the American River, about 29 miles upstream of the city of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento. Runoff from this basin flows through Folsom Reservoir and passes through Sacramento to the confluence with the Sacramento River.

DESCRIPTION: Recent evaluations indicated that the level of flood protection along much of the American River is less than 100-year level. Several flood control projects have been authorized for construction for the American River to reduce the risk of flooding to Sacramento. American River Watershed Common Features consists of modifications to the lower American River levees and Sacramento River east levee in the Natomas Basin; modification of the Natomas Cross Canal levees; telemetered gages above Folsom Dam; and improving the flood warning system for the lower American River. Currently, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations, however the existing outlets limit releases to 36,000 cfs until approximately one half of the reservoir's flood control space is filled. Folsom Dam Modifications, which will allow releases much earlier, consist of enlarging the eight existing river outlets; adding two new outlets; constructing a stilling basin downstream from the emergency spillway; and modifying the auxiliary spillway gates and dikes to raise the surcharge elevation four feet to allow for an additional 48,000 acre-feet of storage. The recent authorization to raise Folsom Dam seven feet makes the need for the surcharge component unnecessary. The authorized project to raise Folsom Dam includes raising related dikes and auxiliary dam, temperature shutter modifications, modifications to L. L. Anderson Dam/spillway on the middle fork of the American River, construction of a permanent bridge downstream of Folsom Dam, and ecosystem restoration projects.

AUTHORIZATION: Water Resources Development Acts of 1996 and 1999; Energy and Water Development Appropriations Act, 2004.

REMAINING BENEFIT-REMAINING COST RATIO: 3.58 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.97 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: Common Features – Initial benefits are from the Supplemental Information Report (SIR) approved June 1996 at 1995 price levels for work authorized in the Water Resources Development Act of 1996 (WRDA 96). Updated benefits and costs are from the Second Addendum to the SIR approved October 2002 at October 2001 price levels. Folsom Dam Modifications – Initial benefits are from the American River Watershed Information paper dated August 1999 at October 1998 price levels, based on the Supplemental Information Report approved June 1996 at a 1995 price levels. Folsom Dam Raise – initial benefits are from the American River Watershed Long Term Study (Appendix B, Alternative 8) dated February 2002. Benefits and costs are associated with flood damage reduction only.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2005)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Common Features					
Estimated Federal Cost		\$161,300,000	WRDA 96 Features	70	TBD
Estimated Non-Federal Cost		53,500,000	WRDA 99 Features	10	TBD
Cash Contribution	\$42,938,000		Entire Project	50	TBD
Other Costs	10,562,000				
Total Common Features		\$214,800,000			
Folsom Dam Modifications					
Estimated Federal Cost		\$129,400,000	Entire Project	2	TBD
Estimated Non-Federal Cost		69,700,000			
Cash Contribution	\$69,700,000				
Other Costs	0				
Total Folsom Dam Modifications		\$199,100,000			
Folsom Dam Raise					
Estimated Federal Costs		\$259,900,000	Entire Project	0	TBD
Estimated Non-Federal Costs		98,200,000 1/			
Cash Contribution	\$63,400,000				
Other Costs	4,800,000				
Added Costs of Permanent Bridge	30,000,000 2/				
Total Folsom Dam Raise		\$358,100,000			
1/ Non-Federal costs shown is based on latest cost allocation between flood damage reduction, ecosystem restoration, and dam safety.					
2/ Source of funds not yet identified.					
Project Summary					
Estimated Federal Costs		\$550,600,000			
Estimated Non-Federal Costs		221,400,000			
Cash Contribution	\$176,038,000				
Other Costs	15,362,000				
Added Costs of Permanent Bridge	30,000,000				
Total Estimated Project Costs		\$772,000,000			

SUMMARIZED FINANCIAL DATA (cont'd)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2004	\$134,411,000	
Conference Allowance for FY 2005	19,675,000	
Allocation for FY 2005	18,314,000 3/	
Allocations through FY 2005	152,725,000	28
Allocation Requested for FY 2006	28,960,000	33
Balance to Complete after FY 2006	\$368,915,000	

3/ Reflects reduction of \$1,219,000 assigned as savings and slippage and \$142,000 rescission.

PHYSICAL DATA

COMMON FEATURES -

Streamflow Gages – Install 3 new telemetered gages upstream of Folsom Lake (WRDA 96)
Flood Warning System – Install on lower American River (WRDA 96)
Closure Structure – Install at Mayhew Drain (WRDA 99)

Levees:

- Construct slurry and jet grout cutoff wall on 19.7 miles of lower American River levees (WRDA 96)
- Modify 4.4 miles of American River levees (WRDA 96)
- Modify 12.1 miles of Sacramento River levees (WRDA 96)
- Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

FOLSOM DAM MODIFICATIONS –

Enlarge eight existing river outlets
Construct two new outlets
Modify existing stilling basin

FOLSOM DAM RAISE -

Raise Folsom Dam, wing walls & dikes
Modify LL Anderson Dam spillway
Construct Bridge
Accomplish ecosystem restoration

JUSTIFICATION: Folsom Dam and Reservoir are key features in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Significant rainfall in recent years has filled Folsom Lake and necessitated record releases in excess of design flow downstream. The levees along the American River are designed to accommodate releases from Folsom

JUSTIFICATION (Cont'd)

dam of up to 115,000 cfs. Downstream levees would likely fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 330,000 residents. Damages could range from \$7 billion to \$16 billion, depending on the magnitude of the event. The Common Features project, consisting of levee improvements along the American and Sacramento River and Natomas Cross Canal, installation of new and telemetering existing streamflow gages and implementing a new flood warning system on the lower American River as authorized in WRDA 96 and WRDA 99 would decrease the probability of flood damage to about a 1 in 100 chance in any one year. With completion of construction features at key sites in FY2004, the levees are designed, constructed, and certified to convey the 100-year event. Average annual benefits for the Common Features portion amount to \$42,300,000, all flood control at October 2001 price levels. The authorized Folsom Dam Modifications project would enlarge eight existing river outlets, construct two new outlets and modify the existing stilling basin. This would further reduce the risk of flood damage to a 1 in 140 chance in any one year. Average annual benefits amount to \$34,900,000, all flood control, at October 2004 price levels. The Folsom Dam Raise Project would further reduce the risk of flood damage to a 1 in 213 chance in any one year. Average annual benefits amount to \$20,100,000, all flood control, at October 2004 price levels.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Common Features	
Complete Pocket Geotech	\$ 1,010,000
Construction Management	100,000
Total Common Features	\$ 1,110,000
Folsom Dam Modification	
Continue Construction on Outlet Works	\$12,350,000
Complete Construction on Emergency Generator/Elevator Contract	500,000
Engineering During Construction	2,000,000
Construction Management	1,000,000
Total Folsom Mods	\$15,850,000
Folsom Dam Raise	
Initiate Bridge and Roadway Contract	4,500,000
Planning, Engineering and Design, Dam Raise	5,000,000
Planning, Engineering and Design, Bridge	2,000,000
Construction Management, Bridge	500,000
Total Dam Raise	\$12,000,000
Grand Total, American River Watershed	\$28,960,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation:		
Common Features		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 9,940,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	622,000	
Pay 20 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1996, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	42,938,000	\$53,000
Total Common Features Non-Federal Costs	\$53,500,000	\$53,000
Folsom Dam Modifications		
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$69,700,000	\$60,000 3/
Total Folsom Dam Modifications Non-Federal Costs	\$69,700,000	\$60,000 3/

3/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement has been negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features. Subsequent agreements are to be negotiated as project information is further defined.

NON-FEDERAL COSTS (Cont'd)

	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Folsom Dam Raise		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$1,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	3,200,000	
Pay 33 percent of the costs allocated to flood control to bring non-Federal share to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	56,500,000	\$293,000 4/
Pay 20 percent of the costs allocated to ecosystem restoration.		6,900,000
Added cost for permanent bridge	30,000,000	
Total Folsom Dam Raise Non-Federal Costs	\$98,200,000	\$293,000 4/
4/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features.		
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.		
Total American River Watershed Non-Federal Costs	\$221,400,000	\$406,000

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors for the Common Features and Folsom Dam Modifications. The Project Cooperation Agreement (PCA) for the Common Features was executed in July 1998 for implementation of features authorized by WRDA 1996. On 12 September 2001, the Reclamation Board and SAFCA agreed to cost share the increase in cost to the then authorized maximum project cost of \$120.6 million. The non-Federal sponsor has indicated it is financially capable and willing to contribute the increased non-Federal share of the costs. The PCA for the Folsom Dam Modifications was executed on 30 March 2004. The California State Reclamation Board, SAFCA, Placer County Water Agency (LL Anderson Dam component) and the city of Folsom (Bridge component) are the non-Federal sponsors for the Folsom dam Raise. That PCA is scheduled for execution in February 2006. The non-Federal sponsors are financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$550,600,000 is a decrease \$7,900,000 from the latest estimate (\$558,500,000) presented to Congress (FY 2005). This change includes the following:

Item	Amount
Design Change	\$-7,900,000
Total	\$-7,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) was filed with the Environmental Protection Agency on 8 March 1996 for the American River Watershed Project. An Environmental Assessment was completed and published in the American River Watershed, California (Folsom Mods) Interim Limited Reevaluation Report (LRR) dated August 2001. The Finding of No Significant Impact (FONSI) was signed 16 August 2001. The final LRR dated November 2003 replaces previous interim LRRs and resulted in no change in the 16 August 2001 FONSI. An SEIS/EIR for the changes to the dam safety facet is under development. The Record of Decision is scheduled for February 2006.

OTHER INFORMATION: Common Features - Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996 under American River Watershed Project, CA.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report (SIR) was completed in March 1996. The SIR identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan. WRDA 1996 authorized construction of the Common Features. Funds were appropriated in Fiscal Year 1998 to initiate construction. Additional flood control improvements along the lower American River and Natomas Cross Canal were authorized by Section 366 of WRDA 1999 as part of the overall project. The cost of slurry wall construction authorized by WRDA 1996 has increased significantly due to increased slurry wall quantities, the technical requirement for the more costly jet grout construction method for slurry wall construction around bridges and deep utilities, and several high-cost contract modifications due to slurry leaks during construction. The cost of planning, engineering and design has also increased. Project reauthorization was required to increase the project cost estimate to complete most of the remaining WRDA 1996 and WRDA 1999 features. The Second Addendum to the SIR, dated March 2002 and revised July 2002, serves as the decision document/post-authorization change (PAC) report. Based on this report, Section 129 of the Energy and Water Development Appropriations Act, 2004 increased the authorized first cost to \$205 million.

OTHER INFORMATION (cont'd)

For implementation of the Natomas Basin features a separate decision document/PAC is being prepared to address the previously unknown levee under-seepage problem along the Sacramento River and the associated increased cost. A General Re-evaluation Report is being prepared for an additional WRDA authorization in 2006. Project cost and schedule will likely change as a result.

Construction of the first contract on the lower American River levees was initiated in July 1998. Relief well construction at Pioneer Reservoir and utility cutoffs at Miller Park will be complete in 2005. Construction is scheduled to begin in 2005 on the Pocket geotech sites (underseepage). Fish and wildlife mitigation costs are currently estimated at \$1,780,000.

Folsom Dam Modifications – Funds used to initiate preconstruction engineering and design on the Folsom Modifications were allocated in FY 2000 under American River Watershed Project, CA. Funds to initiate construction were appropriated in FY 2001.

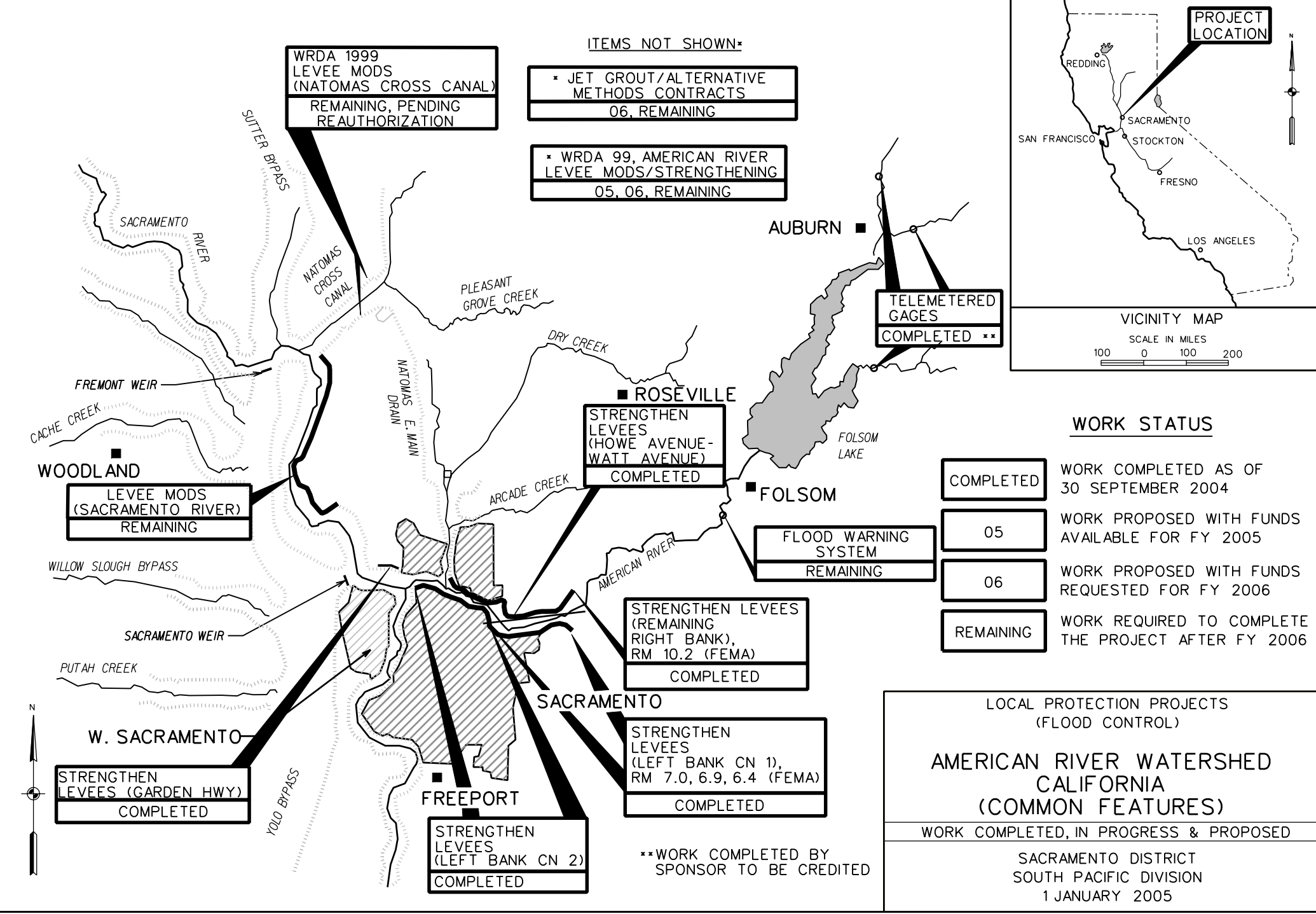
SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Modification Plan described in the 1996 SIR. The 1996 SIR as modified by SAFCA Outlet Report was the basis for the project authorized under the Water Resources Development Act of 1999. The LRR, dated November 2003, documents the 1996 SIR plan as modified by the SAFCA Outlet Report.

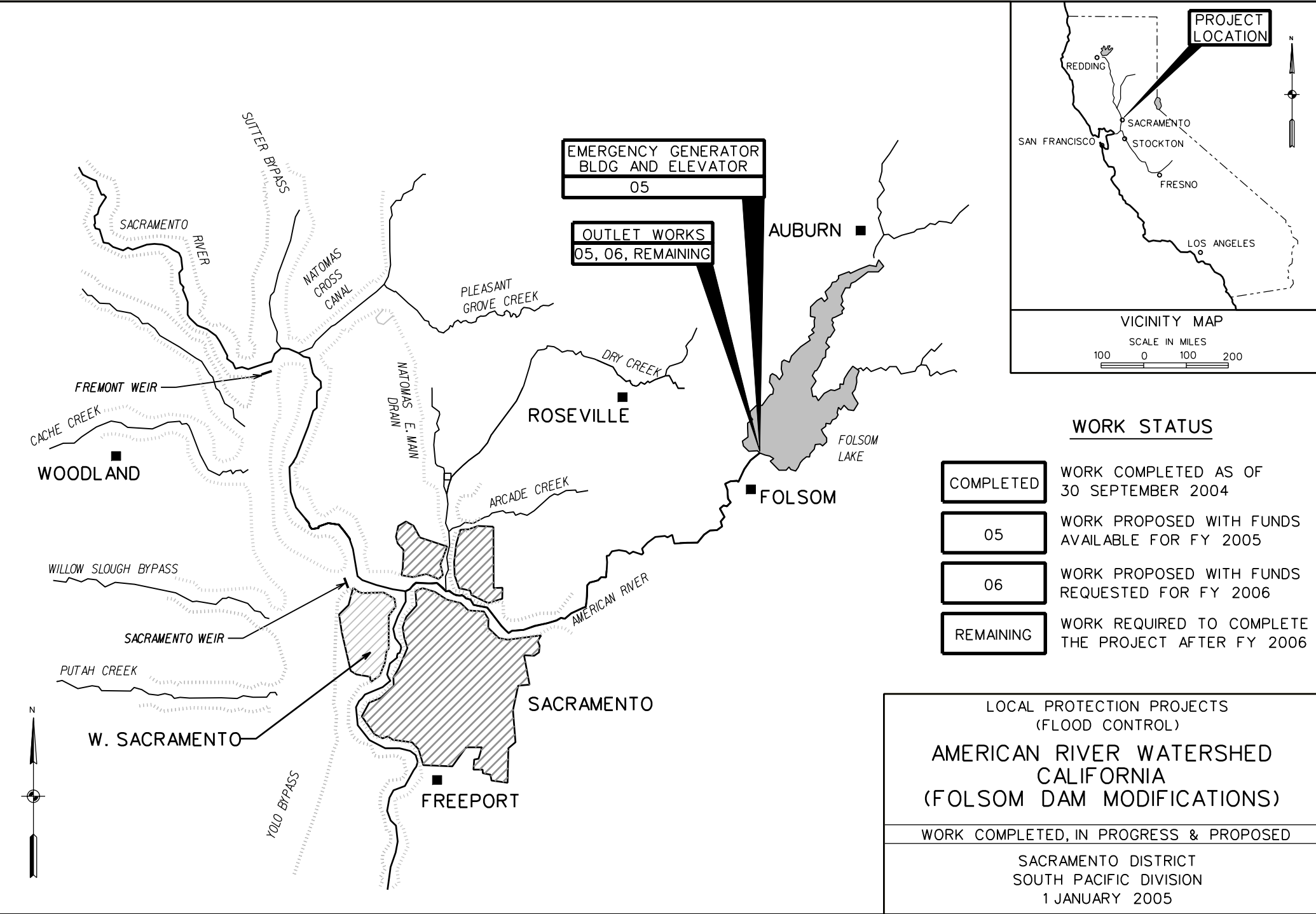
Fish and wildlife mitigation costs are currently not expected to be significant.

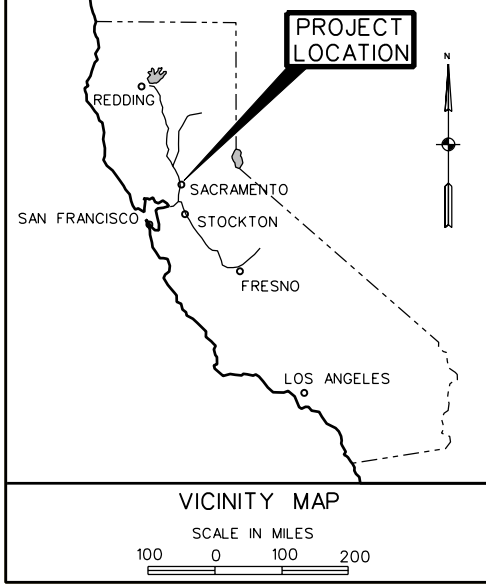
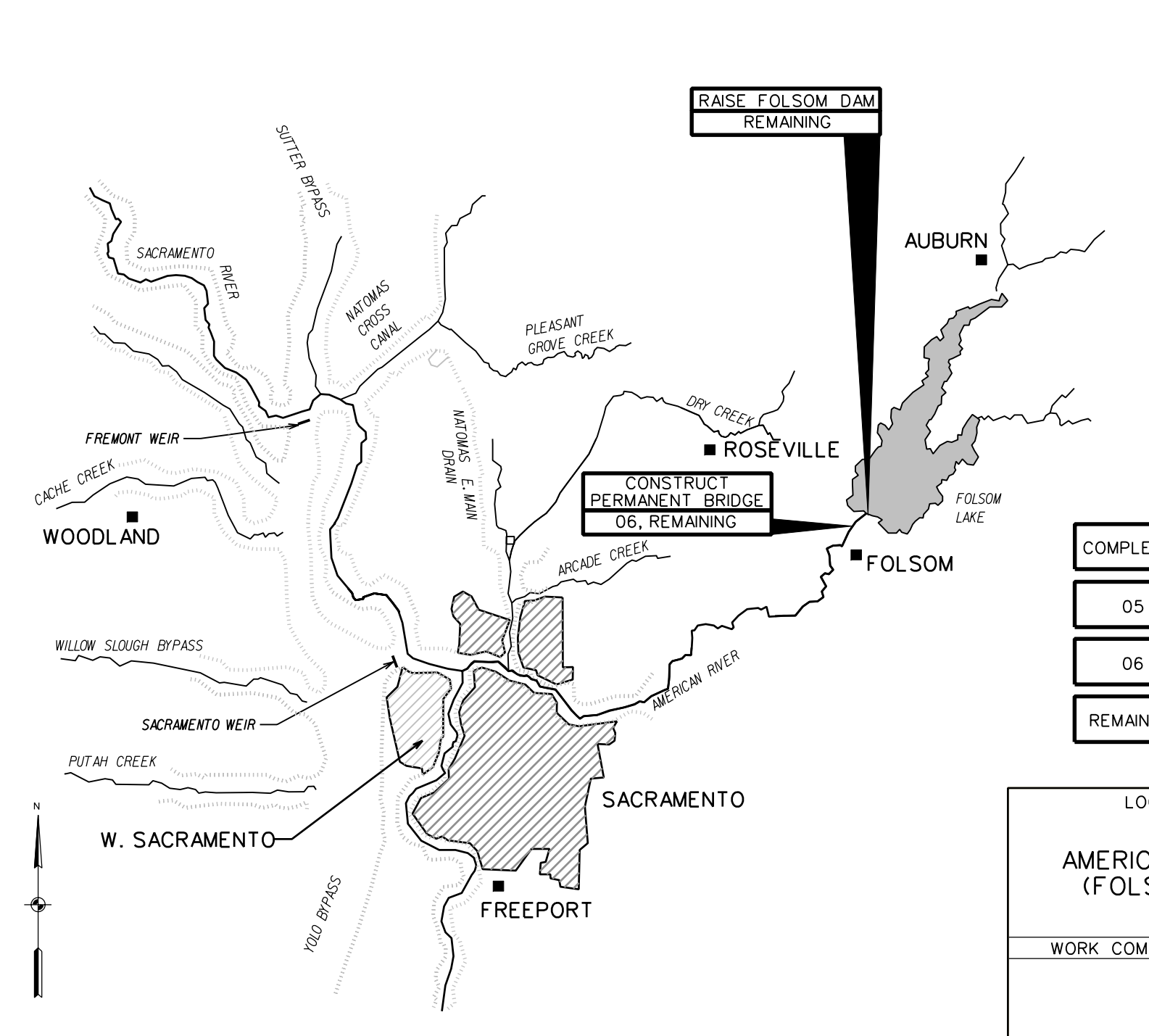
Costs and benefits shown are based on the final LRR, dated November 2003. Average annual costs and flood control benefits for the outlet works component were revised to \$15.6 million and \$34.9 million, respectively, based on October 2004 price levels.

Project cost estimate remains close to the Section 902 limit and engineering design and analysis work is continuing to reduce cost uncertainties. We continue to aggressively manage and design the project to remain under the Section 902 limit.

Folsom Dam Raise – The Long Term Study (Feasibility Report) for the entire American River Watershed was completed in February 2002. The Chief's Report, dated 5 November 2002, was followed by the Division Engineer's Public Notice issued on 22 March 2003. Funds to initiate construction were appropriated in FY 2004. Fish and wildlife mitigation costs are currently not expected to be significant. Total Project cost (including only the temporary bridge component) was authorized at \$257,300,000 in PL108-137, Section 128. The fully inflated cost is now \$328,100,000, compared to a Section 902 limit of \$361,000,000.







WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2004
05	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2005
06	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2006
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2006

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

**AMERICAN RIVER WATERSHED
(FOLSOM DAM MINI-RAISE)
CALIFORNIA**

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2005

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Guadalupe River, California (Continuing)

LOCATION: The project is located in San Jose, Santa Clara County, California.

DESCRIPTION: The authorized plan consists of channel improvements on the Guadalupe River between Interstate Highways 880 and 280, a distance of approximately 2.6 miles with provisions for fish and wildlife mitigation as necessary. The project under construction is the Locally Preferred Plan (LPP). The non-Federal sponsor is responsible to pay 100 percent of the difference in cost between the LPP and the National Economic Development (NED) plan. (See OTHER INFORMATION)

AUTHORIZATION: Water Resources Development Act of 1986 and Energy and Water Development Appropriations Acts for 1990, 1992 and 2002.

REMAINING BENEFIT-REMAINING COST RATIO: 7.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the General Design Memorandum dated December 1991 at October 1991 price levels for the NED project. Current benefits are from the General Reevaluation Report (GRR) dated February 2001 at October 2000 price levels for the NED project. The GRR was approved in November 2001.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$145,900,000	Entire Project	85	TBD
Estimated Non-Federal Cost	105,500,000			
Cash Contribution	\$ 16,800,000			
Other Costs	98,827,000			
Section 104 Credit	- 5,701,000			
Section 215 Credit	- 4,426,000			
Total Estimated Project Cost	\$251,400,000			

Division: South Pacific

District: Sacramento
7 February 2005

Guadalupe River, California

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SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
Allocations to 30 September 2004	\$122,673,000		Concrete channel	1,510 Feet
Conference Allowance for FY 2005	6,000,000		Earth channel	27,055 Feet
Allocation for FY 2005	5,330,000 <u>1/</u>		Box culverts (Bypass Channel)	2,535 Feet
			Concrete gabions & mats	4,655 Feet
			Excavated bench	6,250 Feet
Allocations through FY 2005	128,003,000	88	Gabion terraces	4,130 Feet
			Recreation trails	17,500 Feet
Allocation Requested for FY 2006	5,600,000	92	Recreation riverwalk	13,350 Feet
Balance to Complete after FY 2006	12,297,000		Concrete retaining wall	1,920 Feet

1/ Reflects \$627,000 reduction assigned as savings and slippage, and \$43,000 rescission.

JUSTIFICATION: The Guadalupe River drains an area of about 160 square miles and its 100-year flood plain encompasses approximately 7,000 acres, including downtown San Jose, and consists of both residential and light industrial development. The January 2004 population for the city of San Jose was estimated at 926,200. Flood producing storms have occurred fourteen times since 1945, the most recent in March 1995. The storm of record occurred in December 1955, inundating 8,300 acres and causing approximately \$1.3 million in damages in the Guadalupe River drainage basin. Damages from a 100-year flood under 1990 conditions and October 1999 prices would be approximately \$600 million (Final GRR February 2001). Flooding also occurred in the January 1995 storm (20-year event), where there was minor out-of-bank flooding in Reach 3. During the March 1995 storm (25-year event), there was substantial street flooding caused by out-of-bank flooding in Reach 3 and a lack of storm drain capacity. During both storms, the I-280/Route 87 freeway interchange was partially inundated, resulting in closure of Route 87. It is believed that project improvements at the I-880 bridge prevented extensive bridge foundation erosion. The project will provide 100-year flood protection to downtown San Jose, including approximately 1,020 commercial, industrial, and public structures, 3,270 private residences, four major traffic arteries, and the San Jose International Airport. Average annual benefits at October 2000 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$22,614,000
Recreation	3,171,000
Total	\$25,785,000

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue Mitigation	\$ 1,000,000
Complete Bridge contract	3,000,000
Complete Channel improvements	500,000
Planning, Engineering and Design	700,000
Construction Management	400,000
Total	\$ 5,600,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 the non-Federal sponsor must comply with the requirements listed below (See OTHER INFORMATION):

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas, which are partially offset by a credit allowed (\$5,701,000) for prior work (Section 104 of the WRDA 1986).	\$41,081,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	47,619,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,262,000	\$1,515,000

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay the incremental construction costs for the locally preferred plan.	2,925,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,613,000	983,000
Total Non-Federal Costs	\$105,500,000	\$2,498,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Santa Clara Valley Water District is the local sponsor for both the flood control portion and the recreation portion of this project. The Local Cooperation Agreements (LCA's) for each were executed 30 March 1992. The current non-Federal cost estimate of \$105,500,000, which includes a cash contribution of \$16,800,000, is an increase of \$32,700,000 from the non-Federal cost estimate of \$72,800,000 noted in the Local Cooperation Agreement, which included a cash contribution of \$12,200,000. This estimate reflects an update of the amendment to the LCA that was executed in April 2002. The sponsor agrees with current costs and continues to be financially able to support the project. The Santa Clara Valley Water District has applied for credit in the amount of \$28,400,000 for completed work under Section 104 of WRDA 1986. The Section 104 Credit Evaluation Report recommended \$5,701,000 and was reflected in the flood control LCA. Reimbursement of Section 104 credits was initiated in FY 1993 and was completed in FY 1994 after initiation of a majority of the project construction. The Section 215 Agreement, currently estimated at \$4,426,000, was approved in June 2000 and was executed in May 2001. The Santa Clara Valley Water District completed the work described in the Agreement in FY 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$145,900,000 is an increase of \$12,900,000 from the latest estimate (\$133,000,000) presented to Congress (FY 2005). This change includes the following items:

Item	Amount
Post Contract Award and Other Estimating Adjustments	\$12,900,000
Total	\$12,900,000

Division: South Pacific

District: Sacramento
7 February 2005

Guadalupe River, California

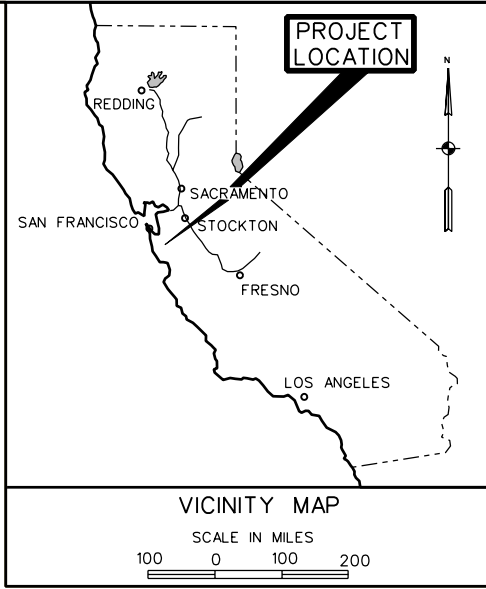
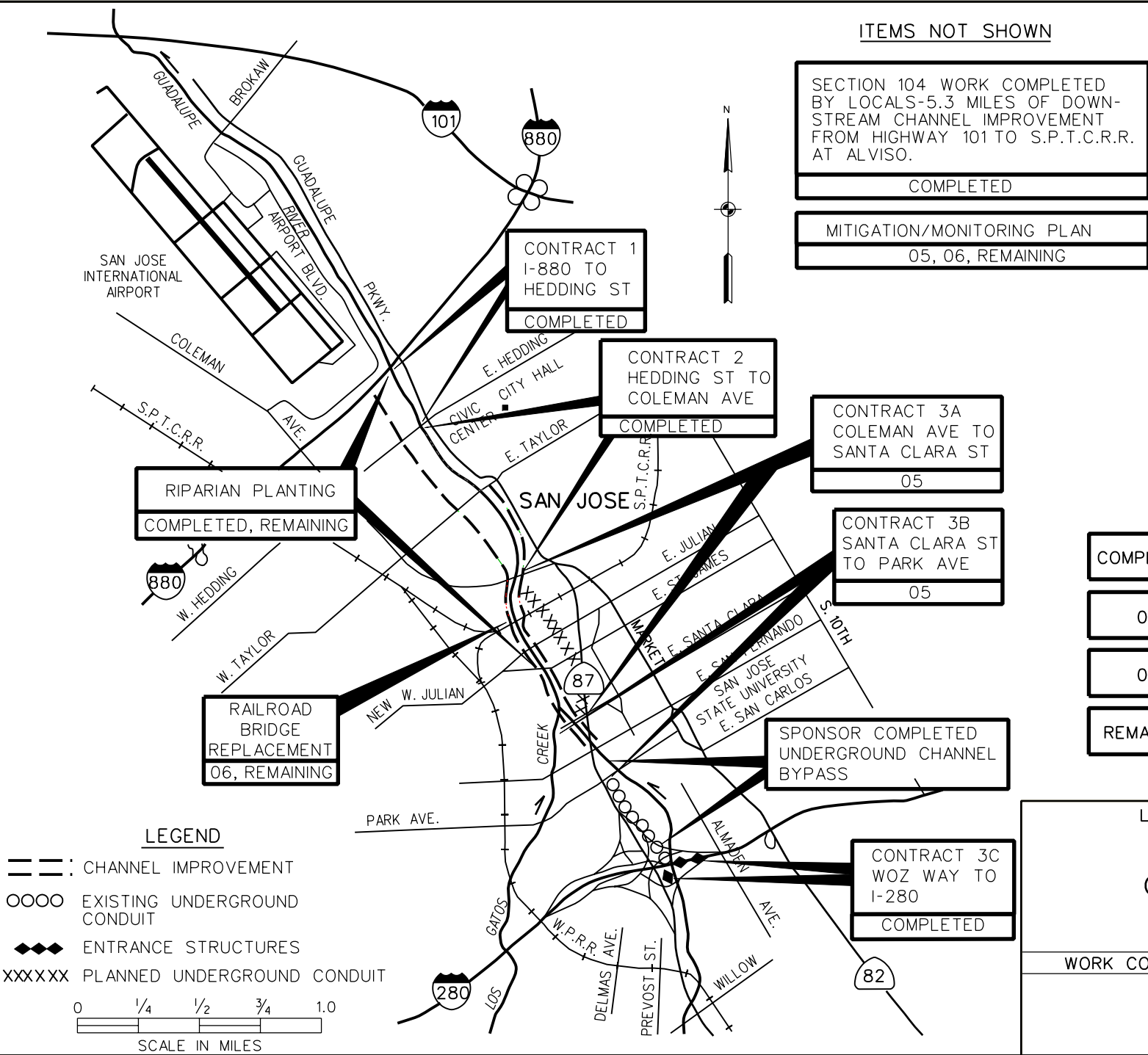
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed in October 1986. Environmental Assessments were circulated for public review and comment on the changes to the Feasibility report and FEIS. Results of the review were included in the December 1991 General Design Memorandum (GDM) and the Record of Decision was filed with EPA on 12 February 1992. A Draft Supplemental EIS was submitted in July 2000. The Record of Decision was signed on 16 November 2001. The Final Supplemental EIS supporting the General Reevaluation Report (GRR) was approved on 19 November 2001.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990.

The Energy and Water Development Appropriations Act, 1990, directed the Secretary to construct the project notwithstanding Section 902 of the Water Resources Development Act of 1986.

The Energy and Water Development Appropriations Act, 1992, directed the Secretary to modify and construct the project in accordance with the December 1991 GDM. While the current plan being implemented differs slightly from the December 1991 GDM Plan, it is consistent with the Guadalupe River Park plan requested by the local sponsor and with cost sharing policy. The Locally Preferred Plan (LPP) is a locally acceptable engineering modification of the authorized plan presented in the July 1985 Feasibility Report/Environmental Impact Statement. It is also the basis for the larger, locally developed, Guadalupe River Park (GRP) Plan. The GRP is a major part of the City of San Jose's current redevelopment plan for the downtown area. The local sponsor, Santa Clara Valley Water District, has agreed to cost share the project in proportion to the National Economic Development Plan (NED), pay all incremental construction costs associated with the LPP, and one-half of the recreation costs.

A General Reevaluation Report (GRR) has been prepared to address impacts to endangered species and water quality. In lieu of widening the natural channel for Reach 3, a bypass channel was recommended to minimize the effects on water quality, endangered species and riparian vegetation. The originally authorized plan could not fully mitigate these impacts. Updated benefits and added costs for required mitigation, lands and relocations were documented in the GRR approved in November 2001. Based on findings of the GRR, Section 106 of the Energy and Water Development Appropriations Act for 2002 re-authorized the project at a total cost of \$226,800,000.



WORK STATUS	
COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2004
05	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2005
06	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2006
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2006

LOCAL PROTECTION PROJECTS (FLOOD CONTROL)

GUADALUPE RIVER CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2005

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Kaweah River, California (Continuing)

LOCATION: The project is located within the Tulare Lake Basin in the southeastern portion of the San Joaquin Valley between the cities of Fresno and Bakersfield, California.

DESCRIPTION: Lake Kaweah/Terminus Dam was completed in 1962, and has provided limited flood protection to Visalia and other rapidly developing urban areas along the Kaweah River. The project plan is to enlarge Lake Kaweah by 42,600 acre-feet by raising the spillway 21 feet to provide additional flood control and water conservation space.

AUTHORIZATION: Water Resources Development Act of 1996; Energy and Water Development Appropriations Act, 2003, Section 110

REMAINING BENEFIT-REMAINING COST RATIO: 10.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.00 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Decision Document approved in December 1999 at 1998 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$33,400,000	Entire Project	82	Dec 2006
Estimated Non-Federal Cost		22,400,000			
Cash Contribution	\$ 4,338,000				
Other Costs	18,062,000				
Total Estimated Project Cost		\$55,800,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2004	\$24,101,000		Spillway: Type – Fusegate, Install 6 fusegates (230.4 feet wide) along reconstructed spillway.
Conference Allowance for FY 2005	5,624,000		Crest height - 715 feet
Allocation for FY 2005	4,999,000 ^{1/}		Capacity - Increase by 42,600 to total
Allocations through FY 2005	29,100,000	87	of 183,300
Allocation Requested for FY 2006	\$ 4,300,000	100	Downstream and Upstream Mitigation
Balance to Complete after FY 2006	0		D/S – 1,218 acres - Levee construction on interior of mitigation site 35 acres – Riparian site 2.1 acres – Endangered Species site U/S – 3,800 acres - Mitigation of oak

^{1/} Reflects \$587,000 reduction assigned as savings and slippage and \$40,000 rescission woodland and riparian plantings and \$2,000 reprogrammed to the project.

JUSTIFICATION: The Kaweah River originates in the Sierra Nevada mountains and drains about 560 square miles into Lake Kaweah (Terminus Dam). From Lake Kaweah it passes near the city of Visalia, with a population of about 103,000 (January 2004), as it flows west into the Tulare Lakebed. Terminus Dam was completed in 1962 to provide flood control and irrigation water supply. However, significant flood damages to communities and highly developed agricultural lands along the Kaweah River have continued to occur. Flood releases beyond Terminus Dam capacity have contributed to flood damages to agricultural lands in the Tulare Lakebed. The December 1966 rainflood exceeded the design capacity of Terminus Dam and floodflows passing downstream of the dam resulted in about \$1.0 million in damages below the dam, under conditions and prices at that time. These downstream flows peaked at about 5,700 cubic feet per second and inundated about 8,000 acres. The most recent flooding in 1983 caused extensive and widespread damages to properties in the Tulare Lakebed area where losses attributed to the Kaweah River were estimated at \$17.6 million. The project includes enlarging Lake Kaweah by 42,600 acre-feet. The average annual benefits at 1998 price levels are as follows:

Annual Benefits	Amount
Flood Control	\$3,882,000
Water Supply	251,000
Recreation	(293,000)
Employment	109,000
Advanced Bridge Replacement	7,000
Total	\$3,956,000

Division: South Pacific

District: Sacramento
7 February 2005

Kaweah River, California

FISCAL YEAR 2006: The requested amount will be applied as follows:

Initiate and Complete Mitigation Contract	\$2,100,000
Complete LERRD Crediting	200,000
Complete New Reservoir Operating Manual, Boundary Surveys, and Inundation Maps	1,000,000
Complete Monitoring of 1 st Reservoir Filling	500,000
Planning, Engineering, and Design	500,000
Total	\$4,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas for flood control.	\$10,476,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project for flood control.	7,586,000	
Pay 35 percent of the costs allocated to agricultural water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of water supply facilities.	1,815,000	\$ 12,800

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,523,000	119,500
Total Non-Federal Costs	\$22,400,000	\$132,300

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and Kaweah Delta Water Conservation District are the non-Federal sponsors. The Project Cooperation Agreement was executed on 9 February 2001 (See OTHER INFORMATION).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$33,400,000 is an increase of \$3,700,000 from the latest estimate (\$29,700,000) presented to Congress (FY 2005). This change includes the following items:

Item	Amount
Design Changes	\$2,700,000
Price Escalation on Construction Features	\$1,000,000
Total	\$3,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on 11 October 1996. The Record of Decision for the EIS was issued on 19 November 1997. An Environmental Assessment (EA) supporting the Decision Document was approved in April 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1996 and funds to initiate construction were appropriated in FY 2000. Design changes consist of toe drains and stability berms at the base of the auxiliary and main dams to better monitor seepage through the dams. Additional mitigation required at the Tulare lakebed due to the presence of vernal pools and burrowing owls.

Division: South Pacific

District: Sacramento
7 February 2005

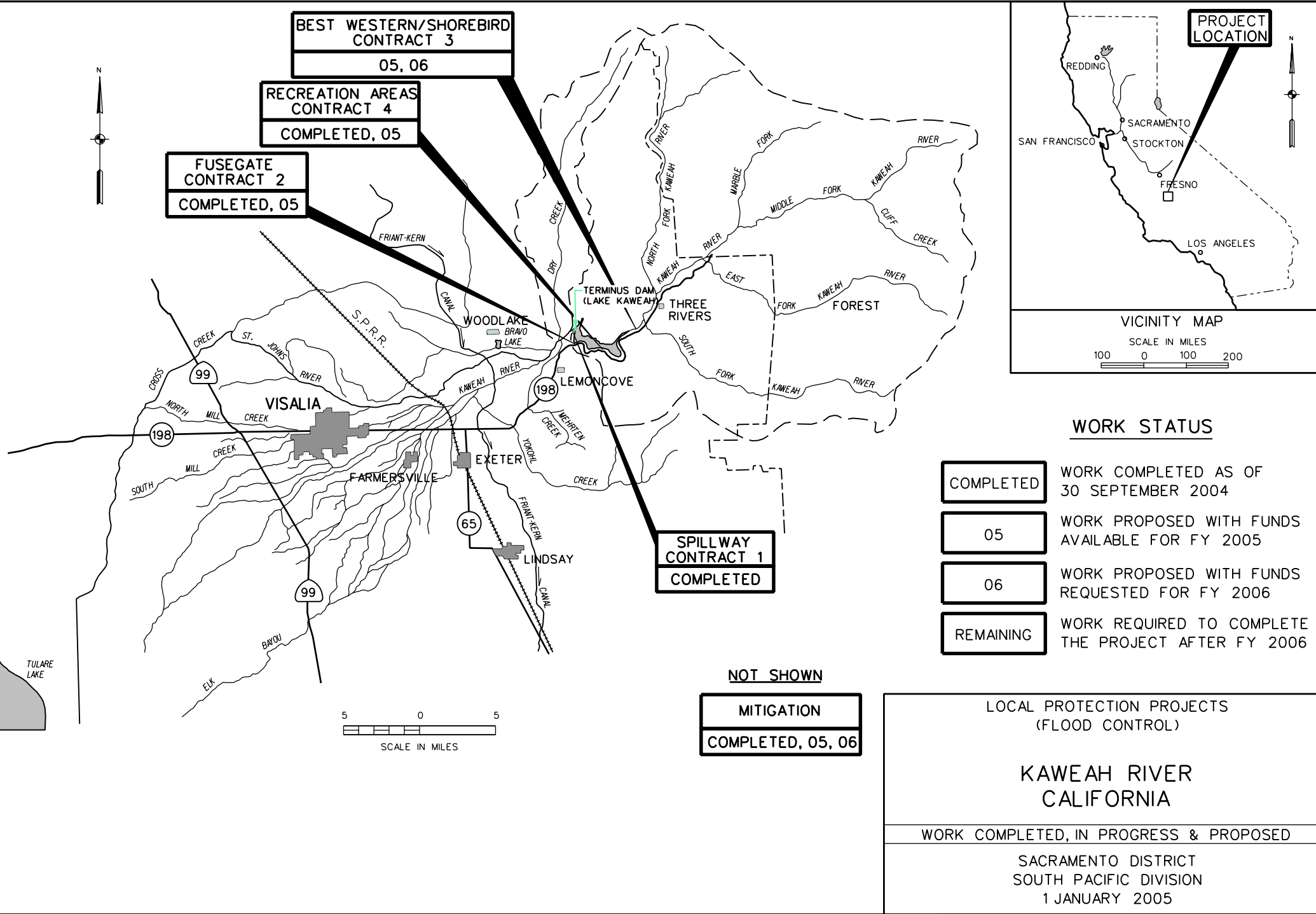
Kaweah River, California

OTHER INFORMATION: (Continued)

Despite increases in sponsor costs for lands and relocations and higher construction and mitigation costs, the local sponsor continues to strongly support the project and is capable of providing additional resources to complete the project.

Section 307 of the Water Resources Development Act of 1999 authorized the Secretary to accept title for lands required for the project and directs the Secretary and the non-Federal interests to enter into an agreement whereby the Corps of Engineers would be reimbursed by the non-Federal interests for costs associated with operations and maintenance.

The fish and wildlife mitigation cost is estimated at \$5.8 million.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Napa River, California (Continuing)

LOCATION: The project is located in the city and county of Napa, California. The Napa River drainage basin, comprising 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California.

DESCRIPTION: The project consists of channel modifications to provide the project area with 100-year level of flood protection from Napa River and Napa Creek. Channel modifications include overbank excavation, vertical walls, floodwalls, levees, bridges, pumping stations, and flowage easements. The project also includes recreation trails and incidental ecosystem restoration.

AUTHORIZATION: Flood Control Acts of 1965 and 1976.

REMAINING BENEFIT-REMAINING COST RATIO: 3.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.07 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Final Supplemental General Design Memorandum, October 1998, at 1 October 1997 price levels. Incidental ecosystem restoration benefits are excluded in calculating the benefit cost ratios. The Final Supplemental General Design Memorandum was approved in May 1999.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$127,800,000	Entire Project	36	TBD
Estimated Non-Federal Cost	\$127,500,000			
Cash Contributions	\$ 13,550,000			
Other Costs	137,200,000			
Reimbursements	-23,250,000			
Total Estimated Project Cost	\$255,300,000			

Division: South Pacific

District: Sacramento
7 February 2005

Napa River, California
66

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2004	\$51,211,000		Channel Modifications along Napa River from
Conference Allowance for FY 2005	16,000,000		Highway 29 to Trancas Street - 6.9 miles:
Allocation for FY 2005	14,214,000 <u>1/</u>		excavation - 1.63 Mil cy
Allocations through FY 2005	65,425,000	51	widening - 16,900 ft
			vertical walls - 1,600 ft
Allocation Requested for FY 2006	6,000,000	56	floodwalls - 13,200 ft
Balance to Complete after FY 2006	56,375,000		levees - 9,900 ft
			training dikes - 7,000 ft
			bypass channel - 1,300 ft
			Channel Modifications along Napa Creek Main
			Street to Earl Street - 4,000 ft:
			excavation length - 1,100 ft
			Pumping stations 3 each
			Bridges
			roadway 6 each
			pedestrian 3 each
			Recreation Trails - 19,000 ft
			Flowage easement - 418.2 acres
			Ecosystem Restoration - 60 acres

1/ Reflects reduction of \$1,671,000 assigned as savings and slippage and \$115,000 rescission.

JUSTIFICATION: The Napa River Basin, ranging from tidal marshes to mountainous terrain, is subject to severe winter storms and frequent flooding. In the lower reach of the river, flood conditions are aggravated by high tides from San Pablo Bay and local runoff. The population in the city of Napa was approximately 76,000 in January 2004. Many residential, business and industrial buildings are located by the Napa River within the City limits. Excluding public facilities, the present value of damageable property within the project floodplain is over \$500 million. Flooding in the Napa area has occurred in 1955, 1958, 1963, 1965, 1986 (flood of record) and 1995. The 1986 flood (estimated to be a 55-year event) resulted in 3 people dead, 27 injured, an estimated \$50-\$100 million in property damages throughout Napa County, and the evacuation of approximately 3,500 residents. The 1986 flood crested at 30.2 feet. The predicted crest for a 100 year flood is 32 feet. During the January 1995 flood (estimated to be a 50-year event) the Napa River crested at about 27 feet, and during the March 1995 flood the river crested near 31 feet. Although the March 1995 river crest was higher than the 1986 flood, fewer damages were incurred during the 1995 flood due to a rain stoppage three to four hours before the crest arrived, allowing the tributaries to partially subside. The damage assessments for the January and March 1995 floods report property damages of \$10 million and \$75 million, respectively. The floods resulted in 227 businesses and 843 residences being damaged county-wide. The project will provide 100-year level of flood protection. Average annual benefits (October 1997 price levels) are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$15,453,000
Recreation	310,000
Ecosystem Restoration	3,293,000
Total	\$19,056,000

FISCAL YEAR 2006: The requested amount will be applied as follows:

Complete 1B Planting and Contract 2E	200,000
Continue Contract 2W Hatt to First	5,000,000
Engineering and Design During Construction	600,000
Construction Management	200,000
Total	\$ 6,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 85,405,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project. (Includes section 215 reimbursement for railroad bridge.)	51,795,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,760,000	\$341,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	790,000	42,000
Federal reimbursement to non-Federal sponsor for non-Federal costs allocated to flood control and recreation in excess of Federal costs.	-23,250,000	
Total Non-Federal Costs	\$127,500,000	\$383,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Napa County Flood Control and Water Conservation District is the local sponsor for both the flood control and recreation purposes of the project. In June 1999, the Napa County Flood Control and Water Conservation District indicated support for the project and intent to cost share both project purposes. In March 1998, the Napa County electorate passed "Measure A" which will fund the non-Federal share of the project. The Project Cooperation Agreement was executed in February 2000. The current non-Federal cost estimate of \$127,500,000, which includes a cash contribution of \$13,550,000, is an increase of \$36,500,000 from the non-Federal cost estimate of \$91,000,000 noted in the Project Cooperation Agreement, which includes a cash contribution of \$9,345,000. The sponsor agrees with current costs and continues to be financially able to support the project.

A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 16 January 2002. It limits Federal credit/reimbursement to no more than \$5,000,000, or 1 percent of total project costs, whichever is greater. In FY 2002, the local sponsor completed construction for a total cost of \$1.1 million. Initial reimbursement for \$500,000 was made 30 September 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$127,800,000 is a decrease of \$600,000 from the latest estimate (\$128,400,000) presented to Congress (FY 2005). This charge includes the following items.

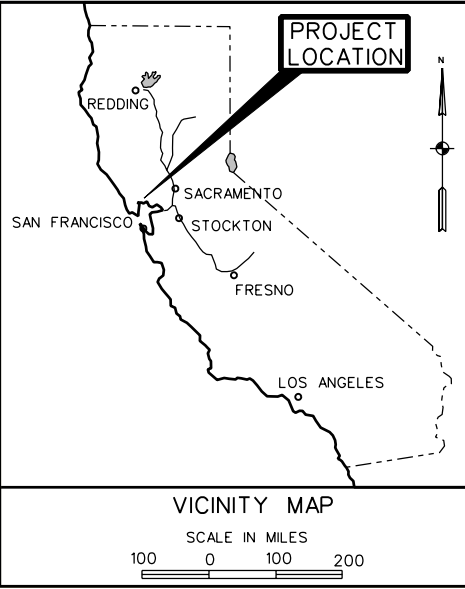
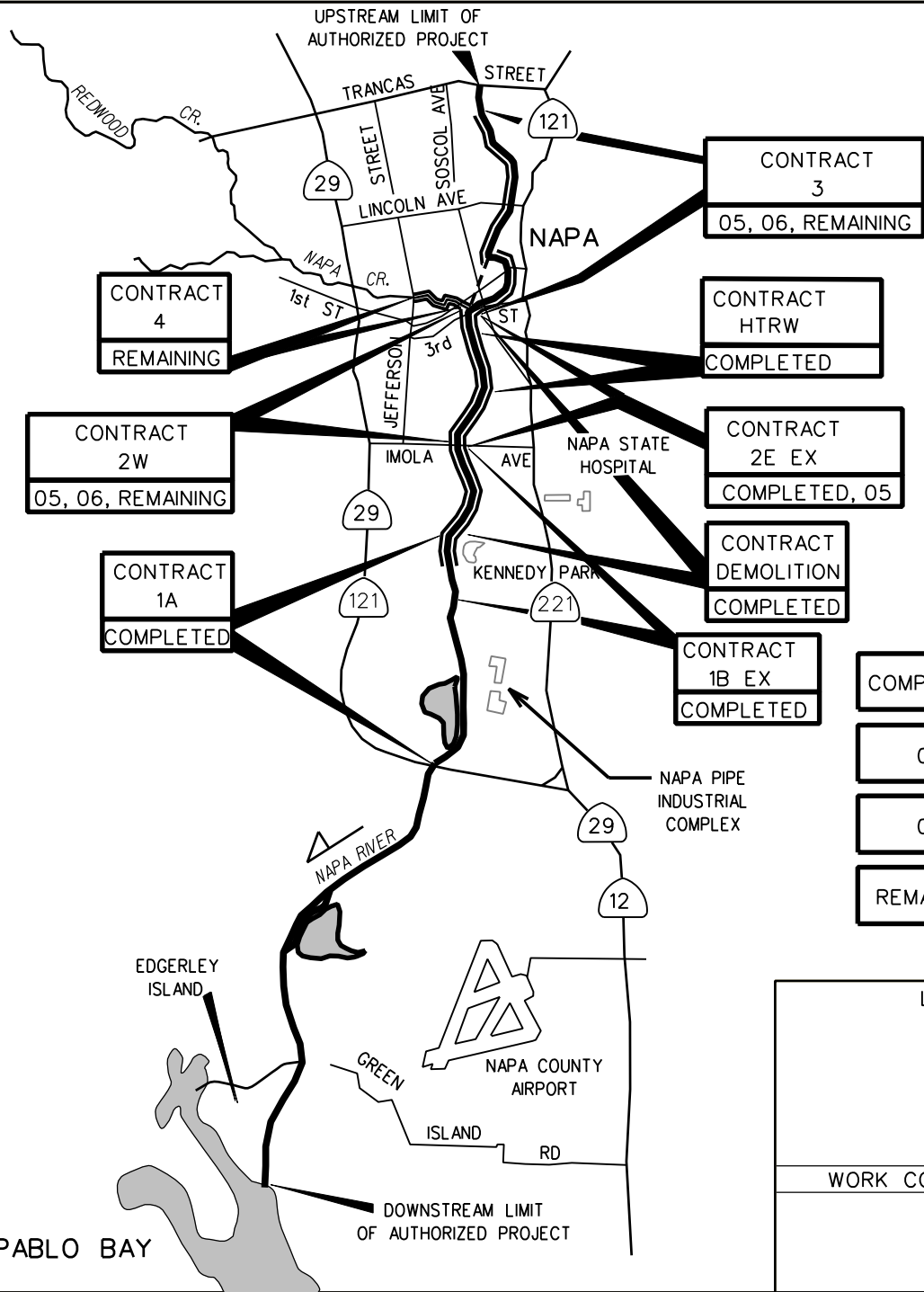
Item	Amount
Price Escalation on Construction Features	\$ -600,000
Total	\$ -600,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA on 18 December 1997. The Record of Decision was signed on 9 June 1999.

OTHER INFORMATION: Funds to resume preconstruction engineering and design were appropriated in Fiscal Year 1989. Funds to initiate construction were appropriated in Fiscal Year 2000.

ITEMS NOT SHOWN

CULTURAL
RESOURCE
MITIGATION
COMPLETED, 05,
06, REMAINING



WORK STATUS

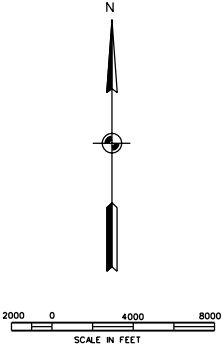
COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2004
05	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2005
06	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2006
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2006

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

NAPA RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2005



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-mile reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties, southeast and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The plan of improvement provides for construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the plan includes recreational development and purchase of lands for mitigation and preservation of endangered species. A project for San Timoteo Creek was added to the Santa Ana River Mainstem project by the Energy and Water Development Appropriation Act of 1988. A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose and was completed in June 1994. Construction was initiated in Fiscal Year 1994. The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These recreational features are not included in the current estimate pending development of plans and determination of costs.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, and Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Phase II General Design Memorandum dated August 1988 at 1987 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 1,025,000,000		Seven Oaks Dam	100	August 99
Estimated Non-Federal Cost		475,000,000		Prado Dam	30	To be determined
Cash Contributions	\$ 82,400,000			Santiago Creek	0	To be determined
Other Costs	392,600,000			Mill Creek	100	March 92
				Oak Street Drain	100	September 94
Total Estimated Project Cost		\$ 1,500,000,000 <u>1/</u>		Lower Santa Ana River Channel	90	To be determined
				Recreation	0	To be determined
				San Timoteo	90	To be determined
				Entire Project	90	To be determined
Allocations to 30 September 2004		\$ 741,920,000				
Conference Allowance for FY 2005		17,850,000				
Allocation for FY 2005		15,858,000 <u>2/</u>				
Allocations Through FY 2005		757,778,000	74			
Allocation Requested for FY 2006		50,000,000	79			
Programmed Balance to Complete after FY 2006		217,222,000				
Unprogrammed Balance to Complete after FY 2006		0				

1/ Reflects \$39,500,000 to be reimbursed to judgment fund for Seven Oaks claim

2/ Reflects \$1,864,000 reduction assigned as savings & slippage and \$128,000 Rescission

PHYSICAL DATA

SEVEN OAKS DAM:

Dam: Type - Impervious core
Height - 550 feet
Length - Crest Length 2,980 feet
Outlet Works: Gated conduit, 8,000 cfs maximum discharge
Basin Capacity: 145,600 acre-feet
Spillway: Type - Detached overflow, 500 ft wide, unlined
Embankment: Earth and Rock fill
Lands & Damages: Acres - 2,736 existing streambed and undeveloped (mountainous)

MILL CREEK

Levee repair: Type - Grouted riprap
Height - 10 feet maximum
Length - 12,500 feet (2.4 miles) of existing
13,600 feet (2.6 miles)

Floodwall (Top of levee): Type – Concrete
Height - 7.5 feet maximum
Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:

Channel: Rectangular concrete 3.0 mile
Trapezoidal riprap 0.3 miles
Lands & Damages: 34 acres for rights-of-way

SANTIAGO CREEK:

Channel: Rectangular concrete 500 feet
Trapezoidal riprap 2.0 miles
Reservoir: Buttressed
Basin Capacity: Flood control 4,620 acre-feet (el. 274 to 298)
Lands and Damages: 281.5 acres, reservoir and channel

PRADO DAM:

Dam: Type - Impervious core
Height - 134 feet
Length - 3,050 crest length
Outlet Works: Gated conduits
30,000 cfs maximum discharge
Embankment: Rolled earth fill
Spillway: Type - Detached, overflow concrete, 1,000 feet wide,
578,000 cfs maximum design discharge.
Basin Capacity: 362,000 acre-feet
Lands & Damages: Acres - 1,661 grazing, wildlife

LOWER SANTA ANA RIVER:

Channel: - 200-450 feet wide, 34 bridges replaced or modified
- 5.0 miles trapezoidal concrete
- 2.4 miles rectangular concrete
- 15.5 miles trapezoidal grouted riprap
- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)
Mitigation Lands: Acres - 92-marsh restoration

RECREATION FACILITIES:

LOWER SANTA ANA RIVER: Bicycle/equestrian trail - 32 miles

SANTIAGO CREEK: Trails - Bicycle and equestrian (1 mile)
Rest stop - Concrete bicycle wheel stops

SEVEN OAKS TO PRADO DAM: To be developed

SAN TIMOTEO CREEK – To be developed

SAN TIMOTEO CREEK:

Channel: 5.4 miles trapezoidal concrete
Basins: 18 in-channel and transition chute
Lands & Damages: 60.3 acres for rights-of-way

JUSTIFICATION: Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir. A severe flood threat exists in this area, which could cause damages in excess of \$15 billion and could endanger and disrupt the lives of over three million people living or working in the floodplain. Damages upstream of Prado Reservoir could exceed \$450 million. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The greatest potential damage area is the Orange County floodplain below Prado Dam. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused \$4 million in damages (\$115.3 million at 2003 prices). Following this storm, Prado Dam was constructed at the head of the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered \$85 million in damages, Prado Dam prevented an estimated \$525 million in damages to downstream communities. With current development, damages for a similar flood would be approximately \$3.6 billion, at 2003 prices. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. Recent storms in January 2005 caused damages to sites at Prado Dam including the outlet channel, inlet structures and the temporary Cofferdam was overtopped. San Timoteo experienced damages to the low flow channel, side drain structure and 18 sediment basins were filled with storm material. With the project, the level of protection downstream of Prado would be increased to 190 years. Average annual benefits, based on October 1987 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	\$ 135,978,000
Recreation	282,000
Total	\$ 136,260,000

FISCAL YEAR 2006: The requested amount will be applied as follows:

Santa Ana Mainstem:

Continue Construction of Reach 9 Phase II and landscaping	14,700,000
Planning, Engineering & Design	1,300,000
Construction Management	1,000,000

Prado Dam:

Continue Construction of Dikes, and outlet channels	27,200,000
Planning, Engineering & Design	1,600,000
Construction Management	1,200,000

Seven Oaks:

Continue Environmental Impact Statement and mitigation	2,200,000
Planning, Engineering & Design	800,000

Total	\$50,000,000
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NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the following requirements listed below.

Requirements of Local Cooperation and Project Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Santa Ana River Mainstem:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	\$ 137,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	50,000,000	
Pay 5 percent cash of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	48,200,000	\$1,194,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	800,000	6,000
San Timoteo Creek:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	8,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,600,000	
Pay 9 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	8,400,000	1,000,000

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation Maintenance Repair Rehabilitation and replacement Costs
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	4,000,000	
Prado Dam: Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	185,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,000,000	
Pay 5 percent cash of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	21,000,000	200,000
Total Non-Federal Costs	\$ 475,000,000	\$ 2,400,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. In accordance with Memorandum of Agreement executed on 6 December 1987, Orange County contributed \$3 million to assure the project design schedule was maintained. Orange County has received credit for those funds towards their share of the project costs during construction. In addition, Orange County worked with California Department of Transportation (CALTRANS) to relocate some key bridges in Fiscal Year 1988, in advance of project construction. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. A draft Local Cost Sharing Agreement for recreation on Santiago Creek has been reviewed and approved by the local sponsor, Orange County, and the Orange County Department of Harbors, Beaches and Parks. Schedules for executing a Project Cooperation Agreement and programming this work are being determined. A Project Cooperation Agreement for Prado Dam was executed in February 2003.

The current non-Federal cost estimate of \$475,000,000, which includes a cash contribution of \$82,400,000, is an increase of \$35,000,000 from the non-Federal cost estimate of \$440,000,000 noted in the current amended Local Cooperation Agreement dated August 1999, which included a cash contribution of \$57,000,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a reasonable and implementable plan for meeting their financial commitments. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a

STATUS OF LOCAL COOPERATION (Continued)

separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$1,025,000,000 is an increase of \$2,000,000 from the latest estimate (\$1,023,000,000) presented to Congress (FY 2005). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	\$ 2,000,000
Total	\$ 2,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979, and funds to initiate construction were appropriated in FY 1990.

Through negotiations with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and least Bell's vireo at Prado Dam), agreement was reached on the number of acres for mitigation. The final biological opinion necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989.

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989. The coordination produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. Numerous coordination meetings were held, and these agencies had a role in the determination of project associated impacts as well as mitigation needs and opportunities. Estimated fish and wildlife mitigation costs for Seven Oaks Dam are \$1,362,000 (\$1,266,000 Federal and \$96,000 non-Federal), for San Timoteo are \$2,743,000 (\$2,725,000 Federal and \$18,000 non-Federal) and for Lower Santa Ana are \$6,713,000 (\$6,537,000 Federal and \$176,000 non-Federal.)

An agreement was signed on 21 September 1989, in accordance with Section 215 of the Flood Control Act of 1968, to permit Orange County to undertake early partial construction of the Santiago Creek improvements in conjunction with other improvements they are planning for water supply, and to be credited for applicable project construction.

OTHER INFORMATION (Continued)

Section 104 of the Energy and Water Development Appropriation Act of 1988 authorized "...San Timoteo Creek in the vicinity of Loma Linda for construction as part of the Santa Ana River Mainstem including Santiago Creek Project... the benefits and costs of the San Timoteo project shall be included together with the benefits and costs of the Santa Ana Mainstem including Santiago Creek. The total costs for the Santa Ana Mainstem, including Santiago Creek, is to be raised by \$25,000,000." A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose. Construction was initiated in August 1994 with a portion of the \$12,000,000 added for that purpose in FY 1994. Additional funds totaling \$17,000,000 has been included in Act Language in Fiscal Years 1995, 1996, and 1997 which were used to complete contract for Reach 2 in September 1997. Also, Act Language for Fiscal Years 1998, 2001, 2002 and 2003 has included a cumulative total of \$25,000,000 additional funds were included for San Timoteo in Fiscal Year 2005.

As a result of local sponsor activities to develop a more environmentally sensitive design for Reach 3, such as a soft-bottom channel, the remainder of the project has been redesigned as Reach 3A (extending to just upstream of Barton Road) and Reach 3B (the remainder of the channel and the in-channel debris control structures). The non-Federal Sponsor has agreed to continue with Reach 3A as per the original design. The Corps with the local Sponsor developed alternatives plan for Reach 3B. Construction of Reach 3B is scheduled for completion in the second quarter of FY 05.

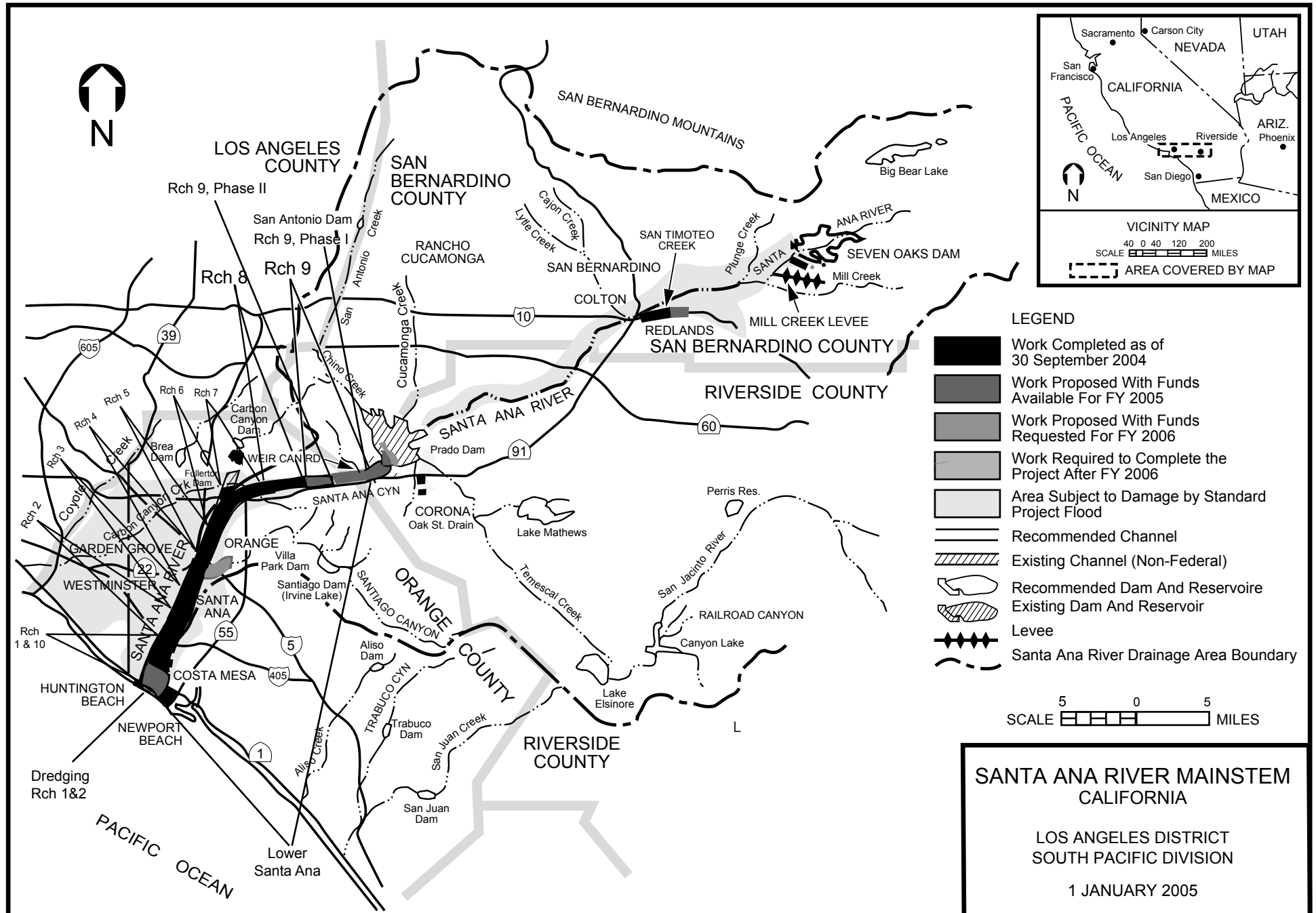
Section 103 (k) of Water Resources Development Act of 1986, authorized reimbursement with interest overtime by the non-Federal sponsor over a period of not more than thirty years from the date of completion of the project. \$10.6 million will be reimbursed. A loan agreement was approved in April 2001. Reach 3 will be implemented under this provision. A total of \$6 million has been paid in Fiscal Year 2001 and 2003.

The project effort for enlargement of Prado Dam, as a separable element, was approved in June 1997, with direction to modify the Local Cooperation Agreement to reflect this determination. Funds were provided in Fiscal Year 2000 for initiation of Prado Dam.

The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These features are not included in the current estimate pending development of plans and determination of costs.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with that portion of California State Route 71 being relocated for the Prado Dam feature of the project.

The Orange County Flood Control District, the local sponsor, has recently presented an increased LERRD cost estimate for Prado Dam of approximately \$157,000,000. The estimate will require an appraisal analysis and additional review to verify and include the estimate as part of the authorized project.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: South Sacramento County Streams, California (Continuing)

LOCATION: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. Most of the basin is situated in the Sacramento Valley. The eastern-most parts of the basin are in the lower foothills of the Sierra Nevada. A portion of the basin lies within the Sacramento city limits, south of the city center.

DESCRIPTION: The selected plan would include the following principal flood control features: raising and extending the ring levee around the Sacramento Regional Water Treatment Plant (SRWTP); raising the Beach Stone Lakes and Morrison Creek levees; installing floodwalls (using sheet pile) on Morrison Creek, Elder Creek, Florin Creek and Unionhouse Creek, and retrofitting bridges to lower risk of failure due to flooding. Recreation features include a bicycle and pedestrian trail. Restoration of ecosystem at five sites would increase water quality to open water environments and enhance and expand wetlands, riparian vegetation, grasslands, and woodlands.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT-REMAINING COST RATIO: 4.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.9 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the Limited Reevaluation Report dated December 2004 (pending approval, at October 2003 price levels)

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2005)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	\$59,700,000	Entire Project	1	TBD
Estimated Non-Federal Cost	\$32,200,000			
Cash Contribution	\$19,900,000			
Other Costs	6,390,000			
Section 104 Credit	5,910,000			
Total Estimated Project Cost	\$91,900,000			

Division: South Pacific

District: Sacramento
7 February 2005

South Sacramento County
Streams, California 81

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2004	\$4,284,000		Beach Stone Lakes
Conference Allowance for FY 2005	2,250,000		Floodwalls: .4 mile
Allocation for FY 2005	1,999,000 1/		Levee Raising: 4.0 miles
Allocations through FY 2005	6,283,000	11	New Levee: 1.3 miles
Allocation Requested for FY 2006	2,852,000	15	Levee improvement: 2.0 miles
Programmed Balance to Complete after FY 2006	50,565,000		Morrison Creek
			Levee raising: .6 miles
			Levee improvement: 3.8 miles
			Floodwalls: 3.8 miles
			Florin Creek
			Floodwalls: 3.8 miles
			Elder Creek
			Levee improvement: 1.0 miles
			Floodwalls: 2.6 miles
			Unionhouse Creek
			Levee improvement: .9 miles
			Floodwalls: 2.0 miles
			Bridge Retrofits
			Ecosystem Restoration: 285 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands.
			Recreation features: 4.5 mile paved bicycle and pedestrian trail with signs, fencing, and benches.

1/ Reflects \$235,000 reduction assigned as savings and slippage and \$16,000 rescission.

JUSTIFICATION: Significant portions of the area were flooded in 1952, 1955, 1962, 1963, 1967, 1969, 1973, 1982, 1986, 1995, and 1997. In January 1995, the most intense rainfall recorded in the watershed resulted in record flows on Morrison Creek, resulting in flows near or exceeding the 1 in 100 annual event. Levee failure along Morrison, Unionhouse, Elder, and Florin Creeks and the SRWTP and Beach Stone Lakes levees could result in flooding of more than 14,000 acres. Approximately 41,000 structures are within the 500-year floodplain with an estimated value of \$5.6 billion. Significant development has occurred in the upper basin, in the Elk Grove area, which is increasing the runoff and potential for flooding. The population of the area is over 100,000 and flooding could result in loss of lives, mainly by drowning from rapid inundation in some areas of the flood plain. Once the floodwaters recede, there would be other impacts on public health and safety. The levees along Morrison Creek and tributaries provide less than a 100-year level of flood protection. The selected plan, known as the Consistent High Protection Plan, would provide a high level of protection (1 in 500 annual event) to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1 in 100 annual event would result in nearly \$715 million in damages (existing conditions).

JUSTIFICATION (Continued)

The average annual benefits at October 2003 price levels are as follows:

Annual Benefits	Amount
Flood Control	\$23,665,000
Recreation	141,000
Environmental Restoration	0 2/
Total	\$23,806,000

2/ Ecosystem restoration benefits are not measured in dollars.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue construction of floodwalls and levee modifications	\$ 2,152,000
Continue restoration contract	300,000
Engineering During Construction	200,000
Construction Management	200,000
Total	\$2,852,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 3,626,000	\$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,764,000	
Receive credit for prior work accomplished IAW section 104 of WRDA 86	5,910,000	
Pay 21 percent of the costs allocated to flood control and environmental restoration to bring the total non-Federal share of flood control and environmental restoration costs to 35% and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control and environmental restoration facilities.	19,200,000	402,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	700,000	41,000
Total Non-Federal Costs	\$ 32,200,000	\$ 380,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of California Reclamation Board, in conjunction with the Sacramento Area Flood Control Agency (SAFCA), will act as the non-Federal sponsor for the flood control features of the project. The current non-Federal cost estimate of \$32,200,000 includes a cash contribution of \$19,900,000. As provided in Section 104 of the Water Resources Development Act of 1986 (PL 99-662), SAFCA applied for credit against their share of the design and construction cost of the project for work carried out after the reconnaissance phase consistent with the ultimately authorized plan. On September 12,

STATUS OF LOCAL COOPERATION (Continued)

1996, the Assistant Secretary of the Army (Civil Works) approved potential credit for SAFCA, estimated at \$7.1 million. The Section 104 credit estimate was revised to \$5,910,000 in the South Sacramento County Streams Addendum to the Feasibility Report dated September 1998. On January 15, 1998, SAFCA passed a resolution adopting the Consistent High Protection Plan as the locally preferred plan and indicated their intent to participate as the non-Federal sponsor. This plan would provide a consistent level of protection throughout the study area. SAFCA, along with the State of California Reclamation Board, has established a fund to mitigate project-related hydraulic impacts downstream in the Beach Stone Lakes and Point Pleasant areas. This fund would be approximately \$2 million and be borne 100 percent by the non-Federal sponsor.

The Project Cooperation Agreement (PCA) for environmental restoration was signed 18 September 2003 and the PCA for flood control is currently scheduled to be signed in April 2005. The sponsor has a reasonable plan for implementation to meet its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$59,700,000 is an increase of \$12,100,000 from the latest estimate (\$47,600,000) presented to Congress (FY 2005). The change includes the following items:

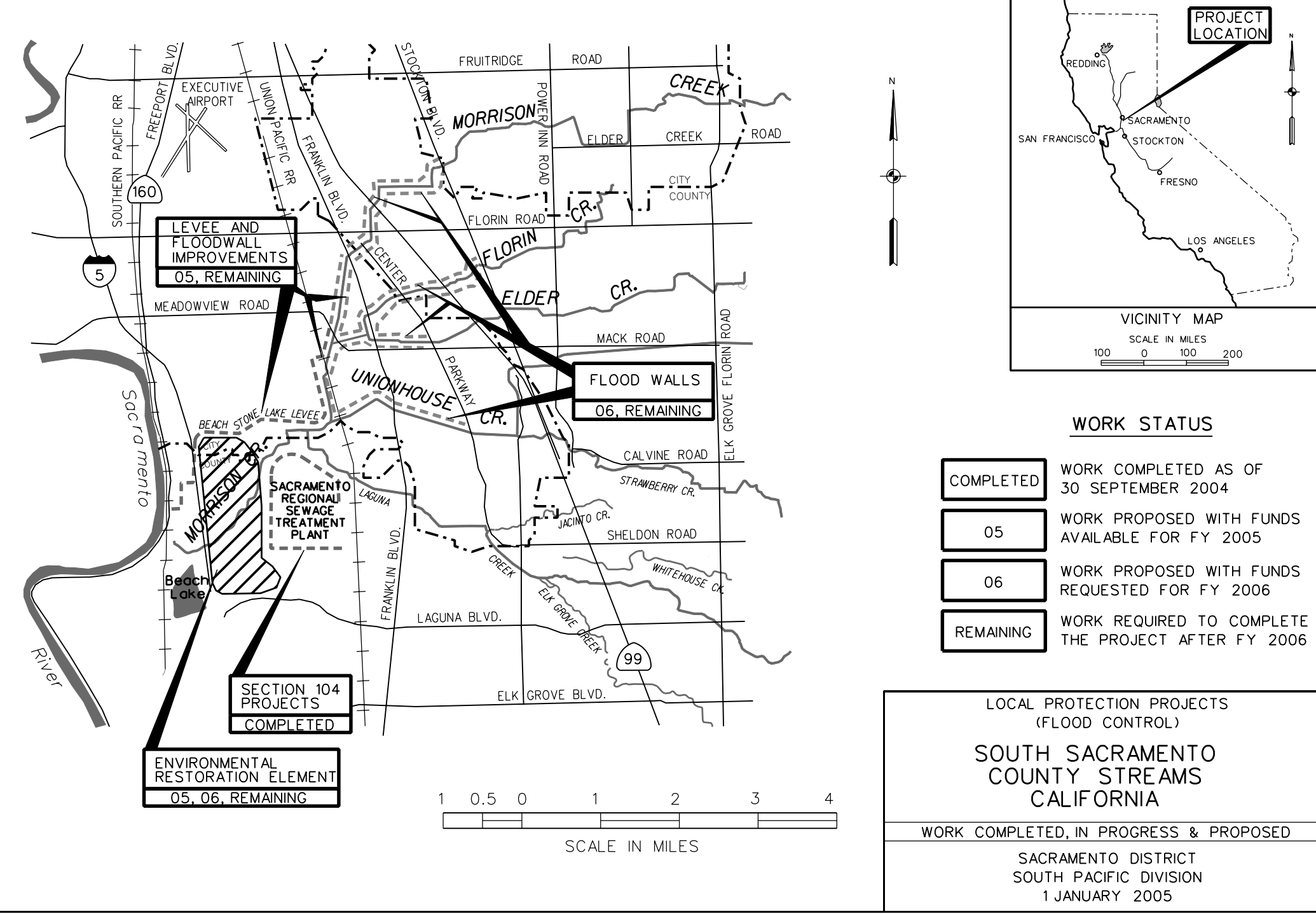
Design Changes	\$ 3,630,000
Price Escalation on Construction Feature	8,470,000
Total	\$12,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA on 15 May 1998. A finding of No Significant Impact regarding the revised design was signed 16 December 2004.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2002. The hydraulic analysis is complete. The revised feasibility level design is finalized. A Limited Reevaluation Report outlining the changes to the project is currently pending approval. The Corps will continue to aggressively manage the project to remain within the Section 902 limit.

The restoration contract will continue through mid FY2008.

Fish and wildlife mitigation costs are currently estimated at \$914,000.



APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Stockton Metropolitan Area, California (Continuing)

LOCATION: The primary project area is in the city of Stockton, California, approximately 40 miles south of Sacramento and 85 miles east of San Francisco. The basin includes a 200 square mile area, extending south from Bear Creek which is located five miles north of Stockton, to Mormon Slough, one mile south of Stockton, and extends West from Jack Tone Road seven miles east of Stockton through the center of the city to the San Joaquin River.

DESCRIPTION: The project provides for reimbursement of the Federal share of design and construction work completed by the local sponsor, San Joaquin Area Flood Control Agency (SJAFCA). Improvements were made to the existing levee system along the Bear Creek System and the Calaveras River System and included modifications to existing levees and construction of new levees and floodwalls. The project provides 100-year level of flood protection.

AUTHORIZATION: Water Resources Development Act of 1996 Section 211.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is complete.

TOTAL BENEFIT - COST RATIO: 3.8 to 1 at 7 percent.

INITIAL BENEFIT – COST RATIO: 2.0 to 1 at 7 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Section 211 Study Report dated August 2000, at 1 October 1998 price levels. Section 211 Study Report was approved 13 Jul 2001.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$35,700,000	Entire Project	100	March 1999
Estimated Non-Federal Cost	\$12,100,000			
Cash Contributions	\$ 2,400,000			
Other Costs	9,700,000			
Total Estimated Project Cost	\$47,800,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
Allocations to 30 September 2004	\$14,701,000		Levee Raise	25.7 miles
Conference Allowance for FY 2005	2,500,000		New Levee Construction	8.8 miles
Allocation for FY 2005	2,221,000 1/		Floodwalls	7.9 miles
Allocation through FY2005	16,922,000	47		
Allocations Requested for FY2006	5,000,000	61		
Programmed Balance to Complete after FY2006	13,778,000			
Unprogrammed Balance to Complete after FY2006	0			

1/ Reflects \$261,000 reduction assigned as savings and slippage and \$18,000 rescission.

JUSTIFICATION: After flooding in northern California in 1986, the Federal Emergency Management Agency (FEMA) initiated a restudy of the Stockton area. Draft Flood Insurance Rate Maps (FIRMs) were released delineating a larger 100-year flood plain than previously recorded, affecting the Stockton urban area, approximately 253,000 residents in January 2002. The potential flood damages have increased significantly because of rapid growth and development during the 1980's and 1990's. The potential cost to the Stockton area, as a result of the proposed FIRMs, was estimated by the city of Stockton to be at least \$30 million annually. As a result, the Corps was directed to identify flood problems and provide solutions for the study area. Three main study systems are identified in the project area: the Bear Creek system, the Calaveras River system and Lower Mosher Slough. Along the Bear Creek and Calaveras River systems, a total of approximately 26 miles of levees were raised and approximately 9 miles of new levees and 8 miles of floodwalls were constructed. A separable element analysis conducted for the Bear Creek and Calaveras River systems validated that they are individually economically feasible and therefore included as part of the Corps Federal Project. With the exception of Lower Mosher Slough (\$4.3 million), parts of Upper Mosher Creek (\$.8 million), Upper Calaveras River (\$3.2 million), and \$.8 million permitting costs, all reaches included in the Locally Constructed Project are included in the Corps Federally Based Plan. The total cost of the Locally Constructed Project is \$56.9 million. The total cost for the Federally based Plan is \$47.8 million. Average annual benefits for flood control are \$8,206,000.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue Local Sponsor Reimbursement – Flood Control	\$5,000,000
Total	\$5,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

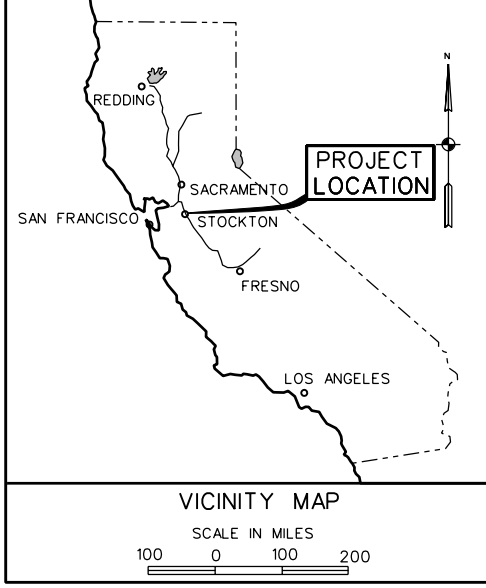
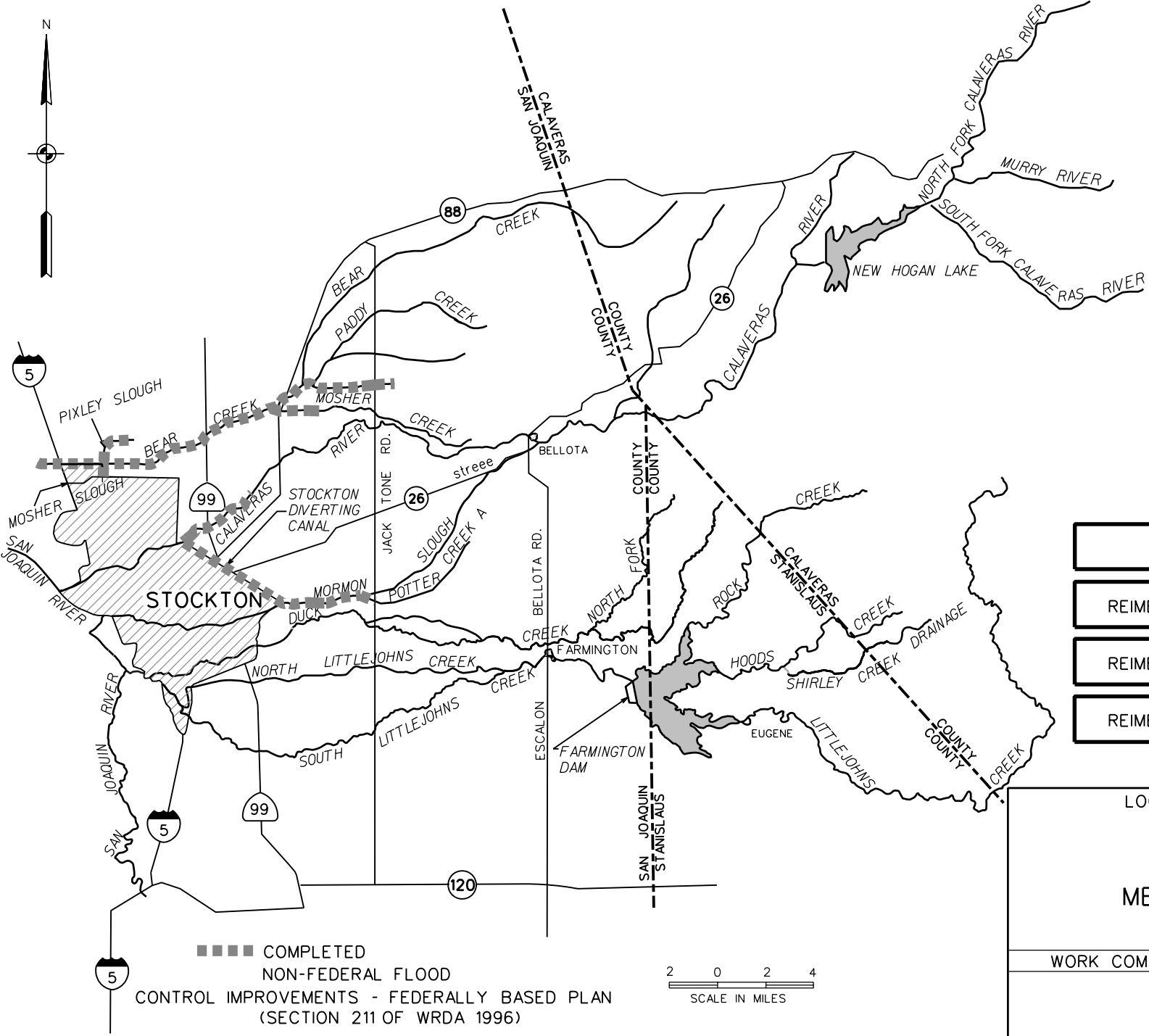
	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 8,900,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	800,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,400,000	\$413,000
Total Non-Federal Costs	\$12,100,000	\$413,000

STATUS OF LOCAL COOPERATION: SJAFCA completed construction of the flood control project in March 1999 at 100 percent local cost. SJAFCA is seeking reimbursement for portions of the project with Federal interest. The Memorandum of Agreement was signed 2 March 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$35,700,000 is the same as the latest estimated presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT REPORT: The Environmental Impact Report (EIR) was issued in 1996 for the San Joaquin Area Flood Control Agency project in accordance with the California Environmental Quality Act. A Final Supplemental EIR was issued in July 1997.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 2001. The Section 211 report concluded that \$9.1 million of SJAFCA's costs for the locally constructed project are not eligible for reimbursement. Improvements to the Lower Mosher Slough Area, approximately 12,100 feet of the Upper Calaveras River, and 3,300 feet of the Upper Mosher Creek, are not eligible for reimbursement under the Federally Based Plan. These areas did not meet the Corps of Engineers minimum flow criteria for participation in flood damage reduction projects. A re-evaluation of the Upper Calaveras River and Lower Mosher Slough Area is being conducted to reassess eligibility for reimbursement. Reimbursements through Fiscal Year 2004 total \$14,380,000



WORK STATUS

	WORK COMPLETED AS OF 30 SEPTEMBER 2004
REIMB	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2005
REIMB	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2006
REIMB	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2006

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
211 REIMBURSEMENT
**STOCKTON
METROPOLITAN AREA
CALIFORNIA**

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2005

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tropicana and Flamingo Washes, Nevada (Continuing)

LOCATION: The project area is located west of and through the urbanized Las Vegas area along both Tropicana and Flamingo Washes in Clark County, southern Nevada. The washes emanate from the surrounding mountains and flow eastward through the developed rural and urban downtown areas to the confluence with Las Vegas Wash.

DESCRIPTION: The recommended plan will provide urban flood reduction, erosion control and wildlife enhancement for portions of Las Vegas and the surrounding areas to the west and southwest, including the rapidly developing alluvial fan immediately west of Las Vegas. The plan recommends construction of three debris basins, three detention basins, modifications to two existing detention basins, 28 miles of channels connecting these project elements, environmental mitigation, and recreation facilities. This system of basins will accept the flows from the primary channels, collect and detain them, and then release them at non-damaging rates of flow from Tropicana Detention Basin. A system of three debris basins will trap large bedloads and prevent erosion damage to the project. Environmental mitigation features include compensation for disturbance to the threatened desert tortoise and other impacted significant terrestrial resources. Recreation facilities will include hiking, bicycle and equestrian trails, and picnic areas around the detention basins.

AUTHORIZATION: Section 101(13) of the Water Resources Development Act of 1992, Section 211(f)(5) of the Water Resources Development Act of 1996, Section 370 of the Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 13.5 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.11 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Chief of Engineers' Report dated January 1992, at 1991 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$ 236,000,000			Channels	91%	TBD
Estimated Non-Federal Cost	79,000,000	<u>1/</u>		Detention Basins	75	TBD
Cash Contributions	\$ 26,000,000			Debris Basins	51	TBD
Other Costs	53,000,000			Recreation Facilities	0	TBD
Total Estimated Project Cost	\$ 315,000,000	<u>2/</u>		Mitigation	100	Sep 1995
				Entire Project	86%	TBD
Allocations to 30 September 2004	\$ 197,910,000					
Conference Allowance for FY 2005	24,000,000		1/	Excludes the cost of the lateral collector system. (See STATUS OF LOCAL COOPERATION.)		
Allocation for FY 2005	18,300,000	<u>3/</u>				
Allocations through FY 2005	216,210,000		92	<u>2/</u>	Current authorized maximum project costs (Section 902)	
Allocation Requested for FY 2006	13,000,000		97		is \$315,000,000 (See Other Information).	
Balance to Complete	6,790,000			<u>3/</u>	Reflects \$2,506,000 reduction for savings & slippage; \$173,000 rescission; and \$3,021,000 reprogramming from the project.	

PHYSICAL DATA
PRIMARY CHANNELS (Trapezoidal concrete)

RED ROCK CHANNELS:
LOWER RED ROCK CHANNEL COMPLEX
Length: 0.5 mile
Base Width: 10-20 feet
Depth: 15 feet
Depth: 10 feet

UPPER RED ROCK CHANNEL
Length: 0.4 miles
Base Width: 5-10 feet
Depth: 10 feet

RED ROCK BELTWAY CHANNELS
Segment 8
Length: 1 mile
Base Width: 10-20 feet

Segment 9
Length: 1.9 miles
Base Width: 5-15 feet

Segment 10A
Length: 2.7 miles
Base Width: 5-15 feet
Depth: 10 feet

Division: South Pacific

District: Los Angeles
7 February 2005

Tropicana and Flamingo Washes, Nevada

PHYSICAL DATA (Continued)
BLUE DIAMOND CHANNELS:

LOWER BLUE DIAMOND CHANNEL

Length: 1.5 miles
Base Width: 10-20 feet
Depth: 15 feet

BLUE DIAMOND BELTWAY CHANNEL

Segment 7A
Length: 2 miles
Base Width: 5-15 feet
Depth: 10 feet

Segment 7B

Length: 1.6 miles
Base Width: 10-20 feet
Depth: 15 feet

UPPER BLUE DIAMOND CHANNEL

Length: 2.9 miles
Base Width: 5-15 feet
Depth: 10 feet

F-1 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 30 feet
Length: 700 feet
Basin Capacity: 75 acre-feet

F-2 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 35 feet
Basin Capacity: 17 acre-feet

Division: South Pacific

FLAMINGO DIVERSION CHANNELS:

LOWER FLAMINGO CHANNEL

Length: 1.6 miles
Base Width: 9-25 feet
Depth: 7-21 feet

UPPER FLAMINGO CHANNEL

Length: 2.1 miles
Base Width: 13-29.5 feet
Depth: 7-13.7 feet

TROPICANA OUTLET CHANNEL:

Length: 1.5 miles
Base Width: 5 feet
Depth: 10 feet

R-4, F-1, F-2 AND F-4 CHANNELS:

Length: 8.9 miles (total)
R-4: 1.6 miles F-2: 1 miles
F-1: 3.1 miles F-4: 3.2 miles
Base Width: 5 feet Depth: 10 feet

DEBRIS BASINS

F-4 DEBRIS BASIN

Type: Basin/earthfill embankment combination,
with dumpstone-revetted embankment
Maximum Height: 25 feet
Basin Capacity: 20 acre-feet

District: Los Angeles
7 February 2005

Tropicana and Flamingo Washes, Nevada

PHYSICAL DATA (Continued)

RED ROCK DETENTION BASIN MODIFICATION

Type: Compacted earthfill embankment
Maximum Height: 60 feet
Length: 4,000 feet
Spillway Length: 940 feet (600 existing, 340 auxiliary)
Basin Capacity: 2,162 acre-feet

FLAMINGO DETENTION BASIN MODIFICATION

Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 4,800 feet
Spillway Length: 180-foot-wide labyrinth
Spillway Elevation: 2470.5 feet NGVD
Basin Capacity: 1,706 acre-feet

BLUE DIAMOND DETENTION BASIN

Type: Roller compacted concrete
Maximum Height: 49 feet
Outlet Discharge: 180 cfs
Length: 6,524 feet
Crest Elevation: 2,869 feet NGVD
Basin Capacity: 2,224 acre-feet

RECREATION FACILITIES

Picnic areas around detention basins
Trails: Hiking, bicycle and equestrian

DETENTION BASINS

R-4 DETENTION BASIN

Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 2,000 feet
Outlet discharge: 360 cfs
Spillway length: 835 feet RCC stepped
Spillway elevation: 3075.78 feet NGVD
Basin Capacity: 391 acre-feet

TROPICANA DETENTION BASIN

Type: Compacted earthfill embankment/roller
compacted concrete
Maximum Height: 10 feet
Outlet Discharge: 500 cfs
Length: 3,300 feet
Spillway Length: 3,300 feet
Spillway Elevation: 2,290 feet NGVD
Basin Capacity: 825 acre-feet

MITIGATION

Habitat of threatened desert tortoise
Permanent disturbance: 730 acres
Temporary disturbance: 215 acres

JUSTIFICATION: Construction of the authorized plan would provide a 100-year level of flood protection to the developing alluvial fan area and to portions of the existing developed urban community. The population of the Las Vegas Valley has increased from 94,000 in 1959 to over 1.6 million in 2003 and is expected to exceed 2 million by the year 2015, greatly increasing the potential for and severity of urban flood damages along Tropicana and Flamingo Washes. The present value of structures and contents in the overflow area is about \$2.5 billion. Most major flooding events result from heavy local summer thunderstorms. The July 1975 flood caused \$5 million in damages, \$15.3 million at 2002 prices, throughout the greater Las Vegas communities. The severity of the July and August 1984 flooding and associated damages, estimated at \$6.5 million, \$9.9 million at 2002 prices, resulted in a Presidential Disaster Declaration for Clark County, including the Las Vegas Valley, in September 1984. Clark County also passed an emergency \$15 million bond issue to deal with the flooding problem. In June 1985, the Clark County Regional Flood Control District was created by the Nevada State Legislature to provide an effective organization to address the flood problems in Clark County. The flood control district completed a Flood Control Master Plan in May 1986, which identifies a recommended plan for the Las Vegas Valley. The floods of June-July 1990 caused three fatalities and approximately \$7.6 million in damages, \$10.2 million at 2002 prices. The flood of July 1999 exceeded a 100-year storm event, caused two fatalities and approximately \$21 million in damages to residential areas and businesses. The severity of this flood resulted in a Presidential Disaster Declaration for Clark County and immediate mobilization of the Emergency Management Agency and the Corps of Engineers disaster teams. The floods of August 2003, caused approximately \$4 million in damages. The partially complete Tropicana and Flamingo Washes Project performed well and sustained no significant damage. The most recent flooding in the Winter of 2004 caused localized flooding at the Red Rock Detention Basin Outlet Channel due to the obstruction of the trash rack. Average annual benefits, at October 1991 price levels, are \$27,000,000, all flood control. The project will provide a 100-year level of flood protection. Future benefits are more than 20 percent of total project benefits. Future benefits are based on savings in future flood proofing costs, which would be incurred without the project. The project does not directly or indirectly induce floodplain development.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue construction of the F4 Debris Basin and Channel	\$11,000,000
Planning, Engineering and Design	1,000,000
Construction Management	1,000,000
Total	\$13,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas (including mitigation).	\$37,600,000	\$
Modify or relocate utilities, roads, bridges (except railroad (bridges), and other facilities, where necessary for the construction of the project.	15,400,000	
Pay 8.3 percent of the cost shown as allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors' ability to pay as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986) and bear all costs of operation, maintenance, repair rehabilitation and replacement of flood control facilities. This amount will be further reduced for credit allowed for the added cost for project channel crossings based on the final credit amount as authorized by Section 107 of the Energy and Water Development Appropriations Act, 2003.	26,000,000	600,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	N/A	
Total Non-Federal Project Costs	\$79,000,000	\$ 600,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Clark County Regional Flood Control District and the Department of Public Works are the local sponsors for flood control. The Clark County Comprehensive Planning Department is the potential local sponsor for the recreation feature. The Project Cooperation Agreement for flood control was executed on 7 February 1995. The current non-Federal cost estimate of \$79 million for flood control, which includes a cash contribution of \$26 million, is an increase of \$17.9 million from the non-Federal cost estimate of \$61.1 million noted in the flood control Project Cooperation Agreement, which included a cash contribution of \$45.1 million. The cash contribution is being partially offset by a credit of \$9.9 million allowed for locally constructed flood control work determined to be in accordance with Section 104 of the Water Resources Development Act of 1986. The Section 211 Amendment to the Project Cooperation Agreement was signed on 17 December 1999. The non-Federal sponsor is constructing the lateral collector system, which will exceed \$18 million. The Project Cooperation Agreement for recreation is currently unscheduled.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$236,000,000 is an increase of \$4,100,000 from the latest estimate (\$231,900,000) presented to Congress (FY 2005). This change includes the following items.

Item	Amount
Post Contract Award, Increase in Real Estate and Other Estimating Adjustments (including contingency adjustments)	\$4,100,000
Total	\$4,100,000

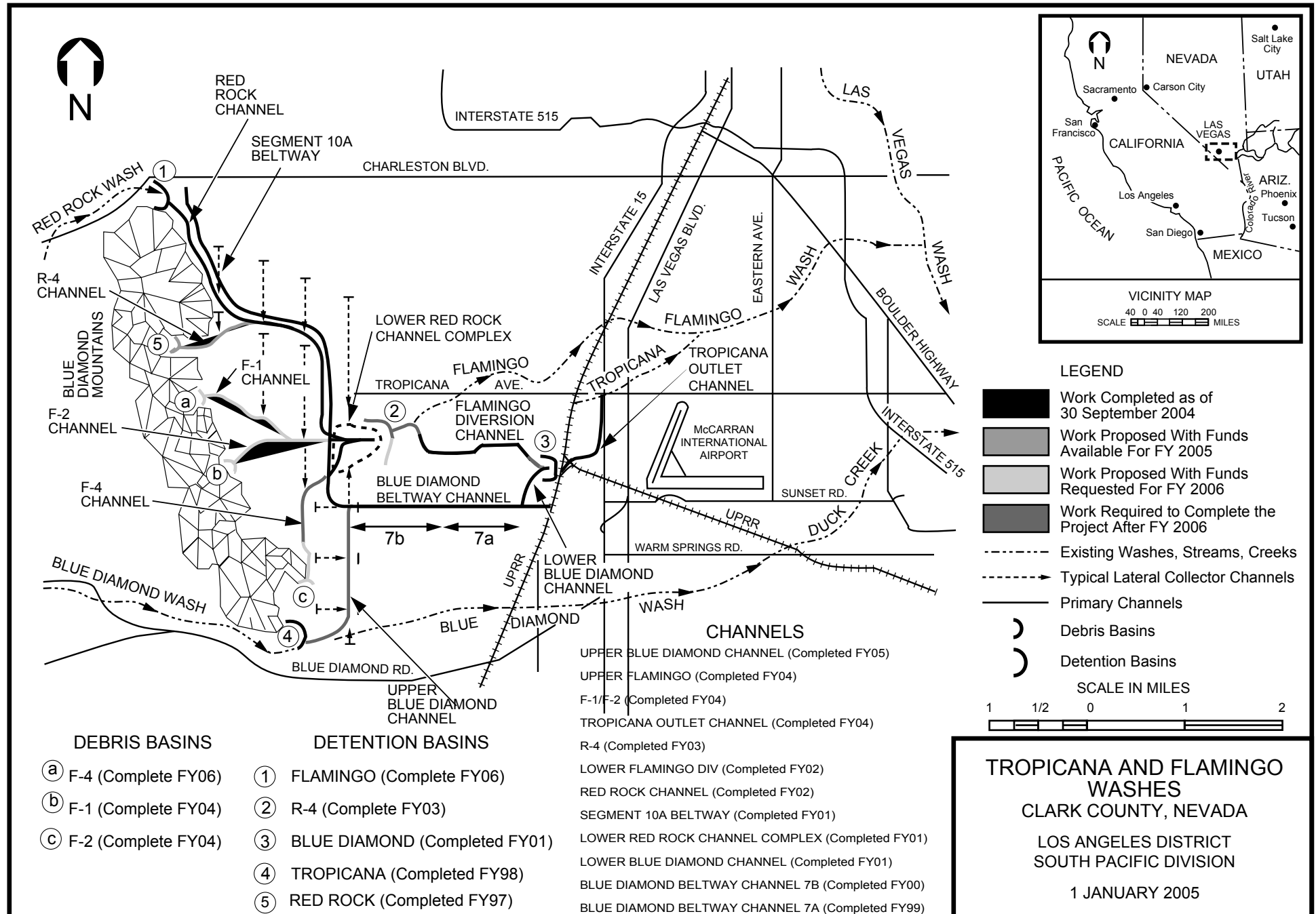
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in October 1991.

OTHER INFORMATION: Funds were appropriated to initiate pre-construction engineering and design in FY 1992 and to initiate construction in FY 1994.

Section 211 of the Water Resources Development Act of 1996 authorized development of flood control projects by non-Federal interests. Section 211(f)(5) specifically names the Tropicana and Flamingo Washes, Nevada, Project to demonstrate the potential advantages and effectiveness of non-Federal implementation, and further states that, subject to amounts being made available in advance in appropriations, the Secretary may reimburse without interest, to the non-Federal interest an amount equal to the estimated Federal share of the cost of such work, if such work is later recommended by the Chief of Engineers, and approved by the Secretary. As of December 2000, the non-Federal sponsors constructed approximately nine miles of project flood control channel concomitant with the Las Vegas Beltway System. The estimated Federal share is approximately \$19 million. The Section 211 amendment to the Project Cooperation Agreement was signed 17 September 1999. Partial reimbursement of \$12.5 million has been made through Fiscal Year 2004.

The Tropicana and Flamingo Washes Recreation Formulation Report is currently under review in Corps Headquarters. This report will be used as the basis to support a Project Cooperation Agreement for the recreation purpose.

Total estimated project costs are projected to exceed the authorized maximum project limit of \$315 million. The Corps continues to aggressively manage remaining construction requirements and will not exceed the \$315 million limitation. Project reauthorization will likely be required to complete project closeout of flood control features and pursue construction of the recreation component.



APPROPRIATION TITLE: Construction, General - Reservoirs

PROJECT: Acequias Irrigation System, New Mexico (Continuing)

LOCATION: There are about one thousand recognized Acequias throughout the state of New Mexico. Most are located in north-central New Mexico in the counties of Mora, Rio Arriba, Santa Fe, San Miguel and Taos.

DESCRIPTION: Protect and restore river diversions and associated canals of community Acequia systems in New Mexico.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. 1/

TOTAL BENEFIT - COST RATIO: Not applicable. 1/

INITIAL BENEFIT - COST RATIO: Not applicable. 1/

BASIS OF BENEFIT - COST RATIO: Not applicable. 1/

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$66,000,000		Diversion Structures Canals and Ditches	28	TBD
Estimated Non-Federal Cost	22,000,000				
Cash Contribution	\$22,000,000				
Total Estimated Project Cost	\$88,000,000		<u>1/</u> Project was authorized without regard to economic analysis in accordance with Section 1113 of the Water Resources Development Act of 1986.		
Allocations to 30 September 2004	\$21,540,000				
Conference Allowance for FY 2005	1,450,000				
Allocation for FY 2005	1,289,000 <u>2/</u>				
Allocations through FY 2005	22,829,000	35	<u>2/</u> Reflects \$151,000 reduction assigned as savings and slippage and \$10,000 rescission.		

Division: South Pacific

District: Albuquerque
7 February 2005

Acequias Irrigation System, NM
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SUMMARIZED FINANCIAL DATA (continued)		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2006	\$ 1,800,000	37
Programmed Balance to Complete after FY 2006	41,371,000	
Unprogrammed Balance to Complete after FY 2006	0	

JUSTIFICATION: The acequia community ditch systems provide irrigation water to about 160,000 acres on an estimated 12,000 farms. About seventy percent of the farms average less than twenty acres in size and are used for subsistence farming. Acequias have been in existence since the early Spanish Colonization period of the 17th and 18th centuries and represent one of the oldest forms of cooperative institutions in the United States. They are an integral part of the culture and heritage of New Mexico. Justification for the project is based upon the historic and cultural significance the Acequias have for the local residents and the major role they play in the overall local economy. Flood damages to the acequia diversion dams and main delivery systems and subsequent interruption of water flow to the systems can have a devastating effect on the irrigators. At the most critical times for irrigation, high flood flows from spring snowmelt at the beginning of the irrigation season and from intense summer thunderstorms during the peak of irrigation cause structural damage or complete loss of ditch structures needed for delivering water to crops.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue Rehabilitation of Acequias	\$ 1,400,000
Planning, Engineering and Design	200,000
Construction Management	200,000
Total	\$ 1,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1986 and 1996, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Requirements of Local Cooperation		
Pay 25 percent of the costs of Acequias restoration following the completion of reconnaissance level activities.	\$22,000,000 <u>3/</u>	\$ 0 <u>4/</u>
Total Non-Federal Cost	\$22,000,000 <u>3/</u>	\$ 0 <u>4/</u>

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

3/ Section 334 of the Water Resources Development Act of 1996 amended Section 1113 of the Water Resources Development Act of 1986 to make the Federal share of reconnaissance studies carried out by the Secretary 100 percent.

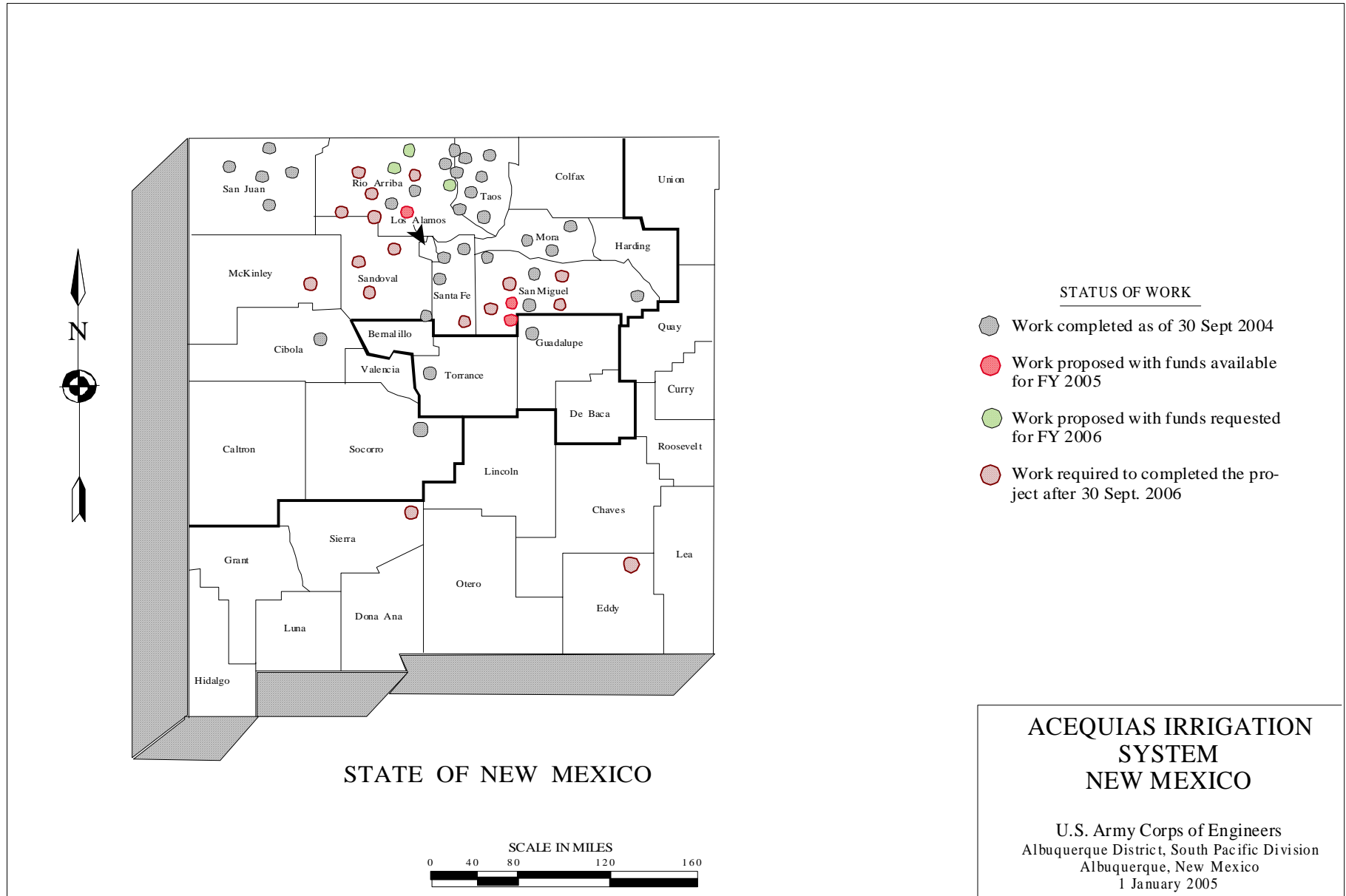
4/ Operation, maintenance, repair, rehabilitation and replacement costs historically are the responsibility of each acequia organization.

STATUS OF LOCAL COOPERATION: The local sponsor, the State of New Mexico, has enacted legislation whereby the State provides 17-1/2% of the project costs and low interest loans to the local Acequias for the remaining 7-1/2% of the non-Federal share. The State of New Mexico has appropriated, on an annual basis, the funds necessary to meet the requirements of local sponsorship. Local Cooperation Agreements have been signed for funds appropriated in Fiscal Year 1988, Fiscal Year 1989, and Fiscal Year 1990. The general Local Cooperation Agreement to cover all the Acequias within the State for remaining work after Fiscal Year 1990 was executed in June 1992. An amended Project Cooperation Agreement, incorporating the cost sharing contained in Section 334 of the Water Resources Development Act of 1996, was executed in March 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$66,000,000 (1 October 2004) is the same as the latest estimate presented to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment will be prepared for each Acequia Restoration Project prior to initiating construction.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1988. The state of New Mexico is the local sponsor for all the Acequias projects within the State.



7 February 2005

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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Alamogordo, New Mexico (Continuing)

LOCATION: The project is located in Otero County, in and near Alamogordo, New Mexico. The city of Alamogordo is situated at the foot of the Sacramento Mountains near the eastern edge of the Tularosa (Closed) Basin.

DESCRIPTION: The authorized project consists of three concrete and rip-rap lined diversion channels which will intercept flood flows from canyons and arroyos in the Sacramento Mountains east of the City.

AUTHORIZATION: Flood Control Act of 1962 Energy and Water Appropriations Act (PL 108-137, Section 105) of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 4.1 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.3 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 5.8 to 1 at 7 percent (FY 1988).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Reevaluation Report, approved in March 1999, using October 1998 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	\$41,400,000		Entire Project	32	TBD
Estimated Non-Federal Cost	13,800,000				
Cash Contribution	\$11,600,000				
Other Costs	2,200,000				
Total Estimated Project Cost	\$55,200,000				
Allocations to 30 September 2004	\$14,591,000				
Conference Allowance for FY 2005	5,250,000				
Allocation for FY 2005	4,664,000 <u>1/</u>				
Allocations through FY 2005	19,255,000	47			
<u>1/</u> Reflects \$548,000 reduction assigned as savings and slippage and \$38,000 rescission.					
Division: South Pacific		District: Albuquerque			Alamogordo, NM 105
		7 February 2005			

SUMMARIZED FINANCIAL DATA (continued)	FED. COST	ACCUM. PCT. OF EST.
Allocation Requested for FY 2006	\$ 4,200,000	57
Programmed Balance to Complete after FY 2006	17,945,000	
Unprogrammed Balance to Complete after FY 2006	0	

JUSTIFICATION: There are no well-defined watercourses in the Tularosa (Closed) Basin. Many canyons and arroyos which descend to the valley floor from the mountains bordering the basin carry runoff. Several arroyos head on the west slope of the Sacramento Mountains and flow westward through the city of Alamogordo, causing extensive damage to residential and business properties, schools and churches, utilities, streets, highways, roads, and other public properties. The major problem arroyos from north to south are Dry, Beeman, Marble, and Alamo Canyons. Also, several minor unnamed arroyos in the vicinity contribute to the problem. Estimated total property valuation of the area in the 100-year flood plain is \$505,000,000 (1 October 2004). Estimated damages from an occurrence of the one percent chance flood under present conditions are \$90,000,000. Records indicate that from 1935 through 1959, eleven floods exceeded the capacity of railroad drainage structures in the area, overtopping the tracks by as much as two feet. Floods on 17 and 26 August 1959 caused estimated damages of \$240,000 and \$57,000, respectively. These damages, based on 1 October 2004 price levels, would be \$2,800,000 and \$690,000, respectively. Other minor flooding, occurring as recently as 1979 and 1984, has caused City officials to be concerned about the flood threat. The average annual benefits are \$8,326,800, all flood control, based on October 1998 price levels.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Continue Construction of South Channel	\$ 3,600,000
Planning, Engineering and Design	300,000
Construction Management	300,000
Total	\$ 4,200,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Cost
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	\$ 1,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	600,000	
Pay 21 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	\$11,600,000	\$135,000
Total Non-Federal Cost	\$13,800,000	\$135,000

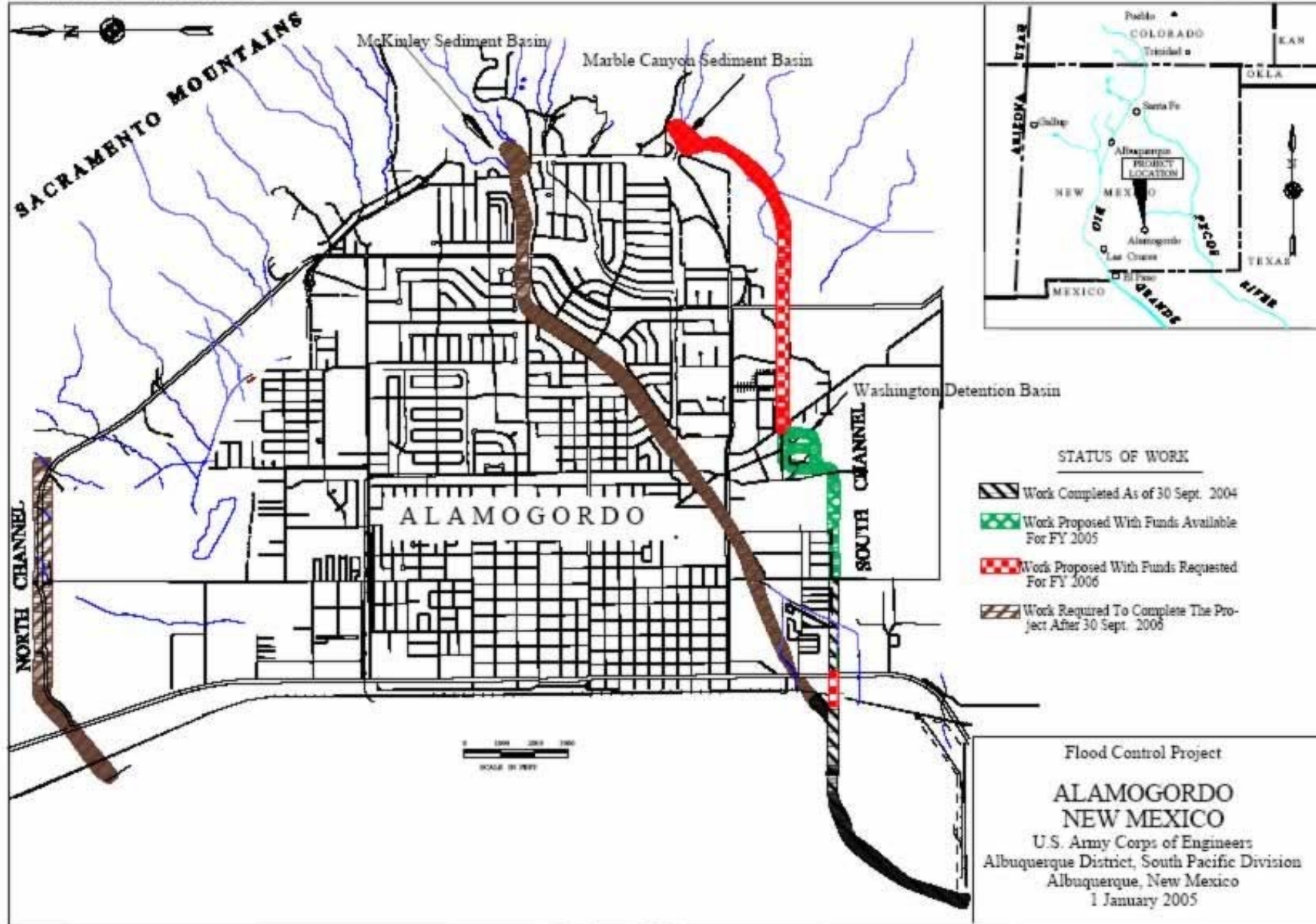
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the city of Alamogordo, New Mexico, was executed in July 1999. The current non-Federal cost estimate of \$13,800,000, which includes a cash contribution of \$11,600,000 is the same as the non-Federal cost estimate noted in the Project Cooperation Agreement. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. Their first payment for construction was received on 15 December 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$41,400,000 (1 October 2004) is the same as the latest estimate presented to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact (FONSI) for the current plan of improvement were signed in October 1998.

OTHER INFORMATION: The city of Alamogordo has been working with the U.S. Army Corps of Engineers and the New Mexico Congressional Delegation for over thirty years seeking a solution to the flood threat from the Sacramento Mountains located east of the City. Funds to initiate construction of the diversion channel were appropriated in Fiscal Year 1988. Work was discontinued in September 1988, without a contract being awarded, because the City could not give assurances of local cooperation due to the failure of a bond issue. To satisfy the concerns expressed by the City Commissioners and area residents, alternative solutions were investigated and were outlined in an Interim Letter Report dated August 1992. The letter report recommended reevaluation of the project through the preparation of a General Reevaluation Report. The General Reevaluation Report addresses alternatives to the authorized Standard Project Flood protection plan. The new alternatives are being constructed in phases to accommodate the sponsor's financial plan. To that end, the City provided a letter of intent emphasizing their commitment and support for further analysis. The General Reevaluation Report was completed in April 1999. The General Reevaluation Report's recommended plan consists of construction of two new diversion channels and upgrading an existing earthen channel which will intercept flows from the Sacramento Mountains. Appurtenant project features include 5 sediment basins, 1 detention basin, and a stilling basin. The Local Sponsor requested that the U.S. Army Corps of Engineers consider a flood detention basin in place of the authorized channel to protect Alamogordo's north side from flooding. Section 105 of the Energy and Water Development Act, 2004 modifies the original project authority by authorizing and directing the Secretary "to construct a flood detention basin to protect the north side of the City of Alamogordo, New Mexico, from flooding. The flood detention basin shall be constructed to provide protection from a 100-year flood event. The project cost share for the flood detention basin shall be consistent with section 103(a) of the Water Resources Development Act of 1986, notwithstanding section 202(a) of the Water Resources Development Act of 1996." The Project Cooperation Agreement will be amended to incorporate this design modification.



APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Hamilton Airfield Wetlands Restoration, California (Continuing)

LOCATION: Hamilton Airfield Wetland Restoration Project is located 4 miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The project includes a 988-acre parcel consisting of a former military runway and adjacent California State Lands Commission areas. The site, currently protected by levees, has subsided below the elevation of surrounding properties including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. The project allows for the beneficial reuse of 10.6 million cubic yards of dredged material, including approximately 2.6 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project to restore nearly 1,000 acres of wetland habitat. The project promotes the long term management strategy for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT – COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits for wetland restoration.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		\$ 47,900,000	Entire Project	5	TBD
Estimated Non-Federal Cost		\$ 16,000,000			
Cash Contribution	\$ 13,100,000				
Other Costs	2,900,000				
Total Estimated Project Cost		\$ 63,900,000			
			PHYSICAL DATA		
			Placement of 10.6 million cubic yards of dredged material; Breach tidal levee; Construction of 9,400 ft of perimeter levee; and Wetland Restoration of 988 acres		

Division: South Pacific

District: San Francisco
7 February 2005

Hamilton Airfield Wetlands
Restoration, California 110

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED EST	
Allocations to 30 September 2004	9,796,000		
Conference Allowance for FY 2005	6,000,000		
Allocation for FY 2005	5,330,000 <u>1/</u>		<u>1/</u> Reflects \$627,000 reduction assigned savings and
Allocation through FY 2005	15,126,000	32	slippage, and \$43,000 rescission.
Allocation Requested for FY 2006	13,000,000	59	
Programmed Balance to Complete after FY 2006	\$19,774,000		
Unprogrammed Balance to Complete after FY 2006	0		

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, currently protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. The principal purpose of the project is restoration of wetland habitat via beneficial use of dredged material from San Francisco Bay dredging projects. The project is also consistent with the local reuse plan for the airfield that was closed in 1974.

FISCAL YEAR 2006: The requested amount of \$13,000,000 will be applied as follows:

Continue Construction	\$9,800,000
Planning, Engineering and Design	2,500,000
Construction Management	700,000
Total	\$13,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and dredged material disposal areas.	\$ 300,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,600,000	N/A
Pay 20.5 percent of the construction costs allocated to fish and wildlife restoration/beneficial use of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 204 of the Water Resources Development Act of 1992.	13,100,000	\$ 228,000
Total Non-Federal Costs	\$ 16,000,000	\$ 228,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California Coastal Conservancy, the local sponsor, supports the project. The Project Design Agreement was executed in September 1999. The current non-Federal cost estimate of \$16,000,000, which includes a cash contribution of \$13,100,000, is an increase of \$2,000,000 from the estimate reflected in the Project Cooperation Agreement, which was signed in April 2002. The non-Federal sponsor has indicated it is financially capable and willing to contribute the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. The Project Cost Agreement amendment to accept advanced funds from the local sponsor was approved by the Assistant Secretary of the Army (Civil Works) on 21 January 2005.

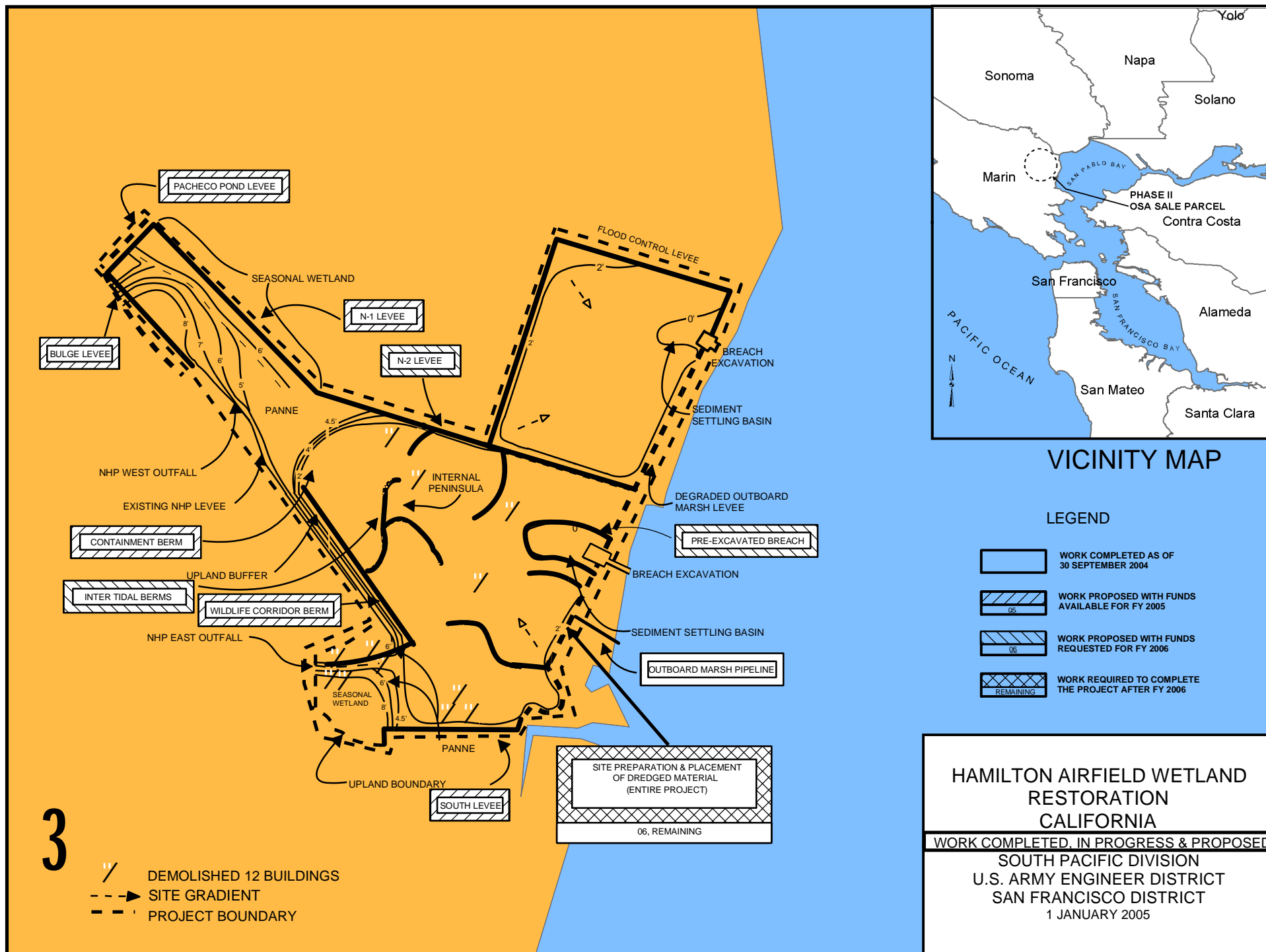
COMPARISON OF FEDERAL COST ESTIMATES: The Current Federal cost estimate of \$47,900,000 is the same amount as last presented to Congress (FY 2005).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in February 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001.

A General Reevaluation Report (GRR) and Supplemental Environmental Impact Report/Environmental Impact Statement for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project were completed in April 2003. The GRR recommends the inclusion of the Bel Marin Keys and also provides a new estimate for the costs of the authorized Hamilton Wetlands Restoration Project. Total project first cost (October 2003 prices) reflected in the GRR, including the Bel Marin Keys increment, is estimated at \$192,900,000. The Chief's Report was signed 19 July 2004. Inclusion of the Bel Marin increment and the new overall project cost would require congressional authorization.

Army Base Realignment And Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003.



APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Success Dam and Reservoir, Tule River, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The project area is located in Tulare County within the 12,500 square-mile Tulare Lake Basin in the southeastern portion of the San Joaquin Valley about 60 miles north of the city of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake and flows from the lake on to the valley through the city of Porterville, and continues another 25 miles through agricultural areas.

DESCRIPTION: A Dam Safety Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Flood Control Act of 1944

REMAINING BENEFIT-REMAINING COST RATIO: 1.43 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.43 to 1 at 7 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the Final Draft Report, Alternative Selection for Seismic Remediation of Success Dam, dated October 2004.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2005)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirements (COE)	\$186,100,000	Entire Project	Not Started	TBD
Future Non-Federal Reimbursement	-2,700,000	PHYSICAL DATA		
Estimated Federal Cost (Ultimate)	183,400,000	Dam-earthfill		
Estimated Non-Federal Cost	2,700,000	Gated outlet conduit		
Cash Contribution	\$ 0	Uncontrolled spillway 200 feet wide		
Other Costs	0	Crest length 22.5 feet		
Reimbursements	2,700,000	Crest width 16.0 feet		
Total Estimated Project Cost	\$186,100,000			

Division: South Pacific

District: Sacramento
7 February 2005

Success Dam and Reservoir, Tule River, CA
Dam Safety Seismic Remediation 115

SUMMARIZED FINANCIAL DATA (Continued)

ACCUM
PCT OF EST
FED COST

Allocations to 30 September 2004	\$5,420,000	1/
Conference Allowance for FY 2005	4,000,000	
Allocation for FY 2005	3,553,000	2/
Allocations through FY 2005	8,973,000	
		5
Allocation Requested for FY 2006	8,000,000	
Programmed Balance to Complete after FY 2006	169,127,000	3/
		9

1/ Includes \$344,000 for PED funded under the Operations and Maintenance Appropriation.

2/ Reflects \$418,000 reduction assigned as savings and slippage and \$29,000 rescission.

3/ Non-federal sponsor has up to 50 years to repay their share of project costs, therefore appropriations for entire project cost must be programmed.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately \$14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, "Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California" (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in ER 1110-2-1806 (16 May 1983). During the review of the dynamic analysis report, it was noted that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies concluded that a Maximum Credible Earthquake would cause extensive loss of strength, slope instability, and deformation over a section of the Success Dam embankment. This damage may be sufficient to result in an uncontrollable loss of the reservoir pool through a breach in the embankment. Similar damage levels may also result from lesser earthquake events. Any breach of the dam should be expected to result in loss of life and damages estimated at \$941 million (2004 prices).

JUSTIFICATION (Continued)

The Lower Tule River Irrigation District has been identified as the primary non-Federal cost-sharing sponsor based on their conservation use of the project.

FISCAL YEAR 2006: The requested amount will be applied as follows:

Engineering and Design of Selected Dam Safety Remediation Alternative	\$8,000,000
Total	\$8,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Reimburse 15 percent of the costs of modification allocated to irrigation water supply (9.5% of total project cost) within a period of 50 years following completion of construction.	\$2,700,000	
Total Non-Federal Costs	\$2,700,000	

The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 50 years following completion of construction in accordance with Water Resources Development Act of 1986 and Public Law 98-404.

STATUS OF LOCAL COOPERATION: In accordance with the Water Resources Development Act of 1986 and Public Law 98-404 the sponsor is required to sign a Cost-Sharing Agreement with the Department of Interior prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of \$186,100,000 is an increase of \$155,200,000 from the latest estimate (\$30,900,000) presented to Congress (FY 2005). The change includes the following items:

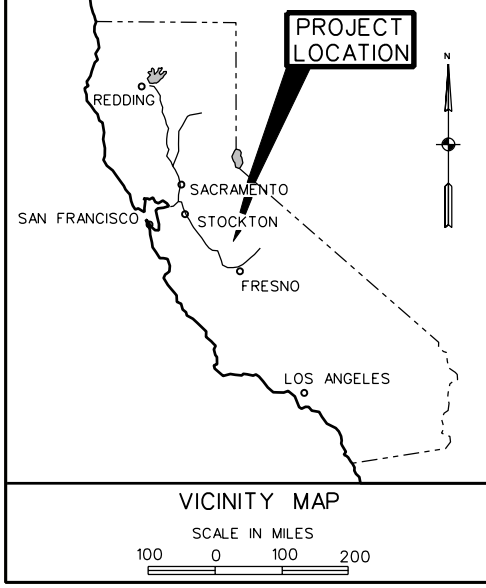
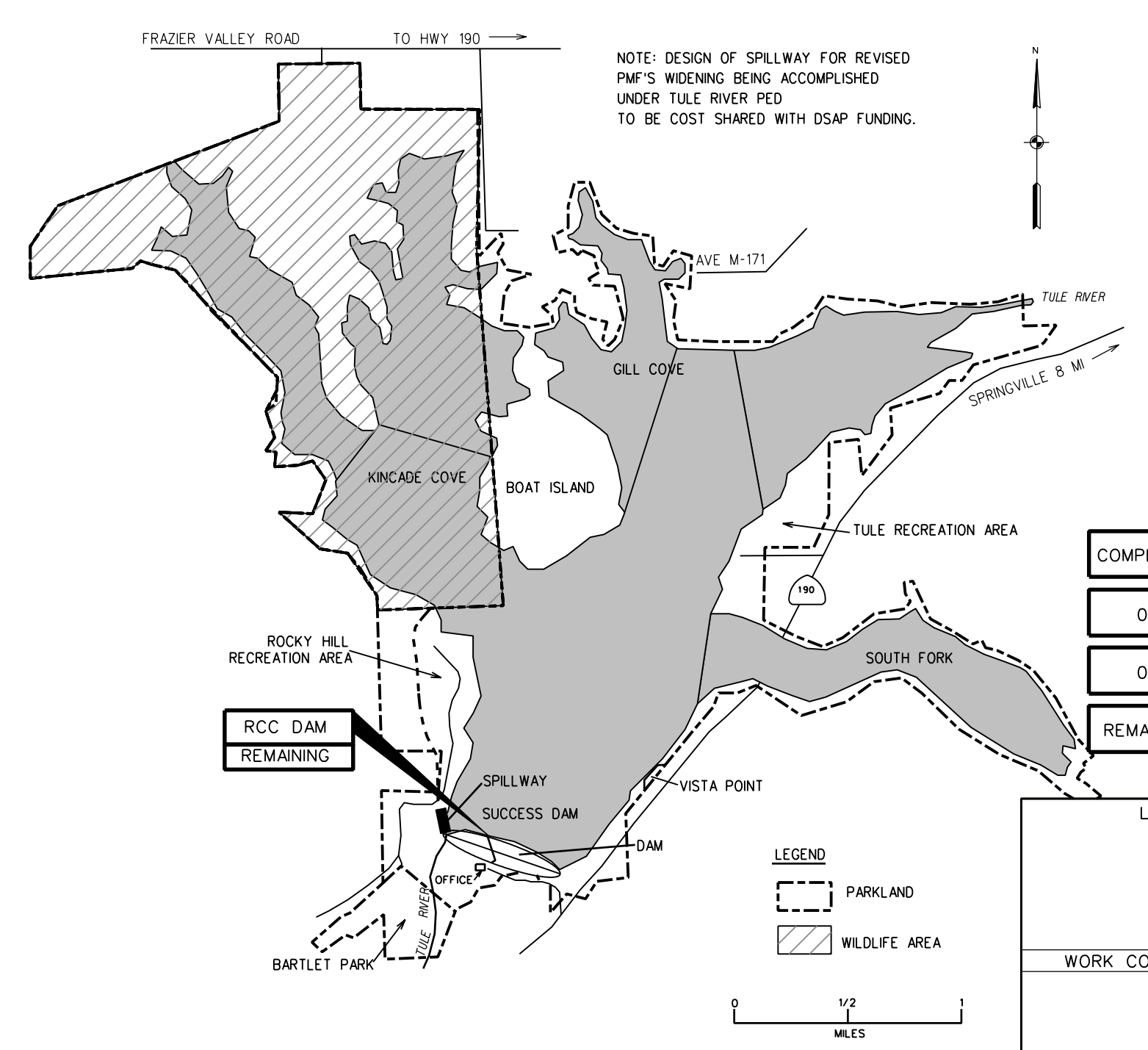
Item	Amount
Price Escalation on Construction Features	\$ 16,427,000
Design Changes	138,773,000 3/
Total	\$155,200,000

3/ Price estimate is based on preliminary estimate derived during alternative selection for roller compacted concrete dam (October 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

OTHER INFORMATION: The Success Dam, Success Lake, Tule River, California Dam Safety Assurance Program Evaluation Report dated January 1999 was approved on 7 May 1999. Following approval of the report, preconstruction, engineering and design was initiated using Operations and Maintenance appropriation funding. Construction funds were initially appropriated in FY 2000.

Alternative for dam safety remediation was selected in September 2004 and consists of a new roller compacted concrete dam (RCC). A replacement RCC dam was selected because repairing the existing dam is not a viable alternative. Since removal of 75% of the existing dam would be necessary in order to expose and treat the liquefiable material underlying 50% of the dam, it is more feasible to provide a new structure immediately downstream of the existing dam. This alternative also allows existing flood control protection to remain in place and will allow continued water storage and recreation in the reservoir during the remediation period of several years.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2004
05	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2005
06	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2006
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2006

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
DAM SAFETY ASSURANCE

**SUCCESS LAKE
CALIFORNIA**

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2005

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

1. NAVIGATION

a. Channels and Harbors.

The budget estimate of \$49,798,000 provides for essential operation and maintenance work on 19 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures; and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
CALIFORNIA			
Channel Islands Harbor	4,362,000	310,000	Periodic dredging in FY 05.
Humboldt Harbor and Bay	4,178,000	5,069,000	Variation in dredging requirements.
Morro Bay Harbor	410,000	1,616,000	Variation in dredging requirements.
Noyo River and Harbor	0	28,000	Dredge Material Management Plan in FY 06
Oakland Harbor	5,139,000	6,205,000	Variation in dredging requirements.
Oceanside Harbor	1,038,000	1,040,000	
Redwood City Harbor	467,000	4,967,000	Variation in dredging requirements
Richmond Harbor	5,785,000	7,972,000	Variation in dredging requirements.
Sacramento River (30' Channel)	2,568,000	2,790,000	.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
CALIFORNIA (Cont'd)			
Sacramento River (Shallow Draft Channel)	138,000	119,000	.
Sacramento River (Debris Control)	1,172,000	1,299,000	
San Francisco Bay-Delta Model Structure	1,113,000	1,185,000	
San Francisco Harbor	2,109,000	2,223,000	
San Joaquin River	2,846,000	2,886,000	
San Pablo Bay and Mare Island Strait	936,000	3,320,000	Variation in dredging requirements.
Santa Barbara Harbor	1,137,000	1,408,000	
Suisun Bay Channel	4,264,000	5,132,000	Variation in dredging requirements.
Ventura Harbor	2,671,000	2,200,000	Variation in dredging requirements.
Yuba River	118,000	29,000	

7 February 2005

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

<u>State/ Project Name</u>	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2005 Total</u>	<u>FY 2006 Total</u>	
CALIFORNIA (Cont'd)			
OTHER PROJECTS MAINTAINED PERIODICALLY	4,437,000		
TOTAL - Channels and Harbors	44,888,000	49,798,000	
b. Locks and Dam - None			
TOTAL - NAVIGATION	44,888,000	49,798,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL

a. Reservoirs

The program request of \$60,177,000 provides for the operation and maintenance of 29 flood control projects and scheduling of flood control reservoir operations at operating publicly owned and Bureau of Reclamation projects in the Division. The request also includes the requirements for operation and maintenance of recreation facilities at reservoir projects. The amount requested is necessary for operation and ordinary maintenance of project facilities; facility security, labor, supplies, replacements; and contract law enforcement. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
ARIZONA			
Alamo Lake	1,309,000	1,280,000	
Painted Rock Dam	1,352,000	1,220,000	
Whitlow Ranch Dam	210,000	190,000	
CALIFORNIA			
Black Butte Lake	1,788,000	1,989,000	
Buchanan Dam - H.V. Eastman Lake	1,860,000	1,781,000	
Coyote Valley Dam - Lake Mendocino	4,125,000	4,084,000	
Dry Creek (Warm Springs) Lake and Channel	5,232,000	5,272,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
CALIFORNIA (Cont'd)			
Farmington Dam	501,000	202,000	
Hidden Dam – Hensley Lake	1,741,000	2,090,000	
Isabella Lake	1,979,000	2,291,000	.
Los Angeles County Drainage Area	5,154,000	4,287,000	
Merced County Streams Group	277,000	251,000	
Mojave River Reservoir	311,000	290,000	
New Hogan Lake	1,941,000	1,994,000	
Pine Flat Lake	2,799,000	2,831,000	
Santa Ana River Basin	3,828,000	3,321,000	
Success Lake	1,907,000	1,809,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

<u>State/ Project Name</u>	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2005 Total</u>	<u>FY 2006 Total</u>	
			CALIFORNIA (Cont'd)
Terminus Dam (Lake Kaweah)	2,157,000	1,692,000	.
			COLORADO
John Martin Reservoir	2,018,000	2,926,000	
Trinidad Lake	1,120,000	1,021,000	
			NEVADA
Martis Creek Lake	588,000	586,000	
Pine and Mathews Canyons	248,000	214,000	
			NEW MEXICO
Abiquiu Dam	2,060,000	3,168,000	Bank Stabilization in FY 06.
Cochiti Lake	3,827,000	3,726,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
NEW MEXICO (Cont'd)			
Conchas Lake	2,083,000	1,579,000	
Galisteo Dam	508,000	779,000	
Jemez Canyon Dam	2,035,000	3,561,000	Remove sediment from intake structure and replace elevator in FY 06.
Santa Rosa Dam and Lake	1,331,000	1,213,000	
Two Rivers Dam	700,000	552,000	
OTHER PROJECTS MAINTAINED	166,000		
Scheduling Reservoir Operations			
The \$3,978,000 requested in FY 2006 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at 33 non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.			
Arizona	33,000	37,000	
California	1,220,000	1,499,000	Increase in analysis and studies in FY 06
Colorado	292,000	590,000	Increase in analysis and studies in FY 06.
New Mexico	1,774,000	1,221,000	Development of computer model to assist water managers in Rio Grande Basin in FY 05 and FY 06

7 February 2005

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS (\$)		Reason for Change and Major Maintenance Items (Threshold \$1,000,000)
	FY 2005 Total	FY 2006 Total	
Scheduling Reservoir Operations (Cont'd)			
Utah	373,000	631,000	Increase in analysis and studies in FY 06.
Total - Scheduling Reservoir Operation	3,692,000	3,978,000	
Cost Shared Recreation	3,000,000		
TOTAL - Reservoirs	61,847,000	60,177,000	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

2. FLOOD CONTROL (Cont'd)

b. Channel Improvements, Inspections and Miscellaneous Maintenance

The \$2,087,000 requested in FY 2006 provides for ecosystem restoration for one project and supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

State/ Project Name	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2005</u> <u>Total</u>	<u>FY 2006</u> <u>Total</u>	
Inspection of Completed Works			
Arizona	85,000	92,000	
California	1,207,000	1,396,000	
Colorado	97,000	90,000	
Nevada	42,000	46,000	
New Mexico	189,000	221,000	
Texas	0	202,000	
Utah	72,000	40,000	
OTHER PROJECTS MAINTAINED	4,787,000		
TOTAL - Channel Improve- ments, Inspections and Miscellaneous Maintenance	6,479,000	2,087,000	
TOTAL - FLOOD CONTROL	68,326,000	62,264,000	

7 February 2005

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

3. MULTIPLE PURPOSE POWER PROJECTS

The program request of \$1,634,000 for the operation and maintenance of the channel below the multiple purpose New Melones Lake project provides the amount for operation requirements of recreation and natural resource facilities along the Stanislaus River downstream of the dam. The amount requested is necessary for operation and maintenance of downstream channel facilities; labor, supplies, materials, and parts required for the day-to-day functioning of the channel project.

<u>State/ Project Name</u>	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2005 Total</u>	<u>FY 2006 Total</u>	
CALIFORNIA			
New Melones Lake	1,282,000	1,634,000	
TOTAL - MULTIPLE PURPOSE	1,282,000	1,634,000	

4. PROTECTION OF NAVIGATION

The \$3,891,000 requested in FY 2006 provides for removal of drift and debris; and supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

Drift Removal		
San Francisco Harbor, and Bay (Drift Removal), CA	2,853,000	2,000,000

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2006

4. PROTECTION OF NAVIGATION (Cont'd)

<u>State/ Project Name</u>	<u>ESTIMATED OBLIGATIONS (\$)</u>		<u>Reason for Change and Major Maintenance Items</u> (Threshold \$1,000,000)
	<u>FY 2005 Total</u>	<u>FY 2006 Total</u>	
Project Condition Surveys			
California	2,067,000	1,891,000	Variation in number of projects to be surveyed in FY 06.
TOTAL - PROTECTION OF NAVIGATION	4,920,000	3,891,000	
GRAND TOTAL-SOUTH PACIFIC DIVISION	119,416,000	117,587,000	